THE USE OF COMPETENCE-BASED APPROACH IN PROVIDING CORRECTIONAL AND PEDAGOGICAL ASSISTANCE TO STUDENTS WITH SPECIAL EDUCATIONAL NEEDS IN PRIMARY SCHOOL

Abstract
The article presents the analysis of the content of correctional and pedagogical assistance to students with special educational needs, studying in a primary school. The possibility of utilization of competence-based approach in the organization and provision of correctional and pedagogical assistance to this category of students are considered.

Key words: special educational needs, correctional and pedagogical assistance, competence-based approach
One of the important tasks of the educational process at school is the formation of students’ knowledge, skills, providing orientation in the system of social relations and preparation for independent life in society. Of particular importance is the solution of this problem in teaching students with special educational needs due to the reduction of their overall level of development, lack of formation to the required level of cognitive processes, difficulties of conscious assimilation of educational material and understanding of various social situations. These features necessitate a specially organized educational process based on their existing difficulties and potential opportunities.

Attention is drawn more to those students with special educational needs who are enrolled in secondary schools. In this case, to solve the above problem when working with students with special educational needs in primary school, the process of correctional and pedagogical assistance is organized as a necessary component of the training of this category of students.

The provision of correctional and pedagogical assistance is considered as additional assistance to students with special educational needs, aimed at creating a full-fledged basis for the successful assimilation of knowledge, skills and abilities of this category of students. Provision of special pedagogical assistance is based on the knowledge of regularities of development of students’ individual peculiarities of their cognitive activity and personality and is characterized by mandatory involvement of students in the process of practical activity on the basis of actualization of mental activity. The implementation of this process is possible on the basis of the use of a competence-based approach, focusing on the assimilation of specific skills by students, which will further solve various life situations and determine the most appropriate ways of activity in these situations.

The purpose of this article is to analyze the essence of correctional and pedagogical assistance to students with special educational needs in primary school on the basis of the competence approach.

Vladimir I. Lubovsky considered special educational needs as needs in conditions necessary for optimal realization of actual and potential opportunities. Realization of actual opportunities at students with special educational needs unlike normally developing contemporaries is possible only at creation of the special conditions providing simplification of understanding of the situation and, as a consequence, promoting search of the most adequate ways of behavior in this situation. Potential opportunities of this category of students are more limited in comparison with normally developing peers that causes search of types of the help on the basis of which use they will have an opportunity to transfer mastered skills from a zone of the nearest to a zone of actual development.

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Actual and potential possibilities, according to Lubovsky’s ideas, can be characterized on the basis of the analysis of the following components: cognitive, energetic and emotional-volitional features. Each component contributes to the formation of a system of knowledge, skills and abilities of students with special educational needs.

Cognitive features provide the process of obtaining, assimilation and further use of information. The level of their formation depends on the speed and quality of assimilation of the material. At students with special educational needs cognitive features are characterized by insufficient formation: duration of the analysis of information, difficulties of differentiation of a material on the main and minor is noted; fragmentary assimilation of a material, generally with a reliance on its emotional saturation; difficulty long to keep information in memory in the absence of constant repetition; reduced ability to analyze, compare and generalize the material; difficulties in extracting material from memory when solving various tasks of practical and mental content; small vocabulary, especially active; insufficient volume of ideas about the world.

Energy features suggest the presence of mental activity, the ability to perform activities for a certain period. In students with special educational needs, this component is characterized by: the inability to perform tasks productively for a long time and in the absence of proper control from the external environment; increased mental exhaustion.

Emotional-volitional features include cognitive motivation, focus on the performance of activities, arbitrary attention and, as a consequence, control of the performance of activities. Within this component, special attention is paid to the consideration of arbitrary attention as an emerging skill of self-control.2 Becoming arbitrary, attention allows to focus on the process and the result of the activity, monitor the progress of the task and thus timely notice errors, make adjustments to the process of activity and achieve the right result. Students with special educational needs have the following emotional and volitional features: reduced cognitive motivation, the predominance of game motivation at the initial stages of training; the predominance of involuntary attention, increased distraction; difficulty concentrating on the essence of the task and keeping attention during its execution; insufficient ability to notice the errors of activity and correct them in a timely manner; insufficient criticality to the result.

For the full implementation of any activity in the child must be formed all three components. These features of students with special educational needs create certain difficulties in the learning process, especially at the initial stages.

With the start of schooling, students are noted to develop school skills such as reading, writing and counting. Their assimilation provides the opportunity for

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further training and the success of the assimilation of the entire system of knowledge, skills and abilities in the process of further training. Each of these school skills is a functional system that includes different components that ensure its implementation as a whole. In this article we will focus on the consideration of such a school skill as counting.

Low level of cognitive activity, lack of cognitive activity inhibit the process of assimilation of knowledge, skills, thereby lead to limited level of actual development of students, and narrow their zone of immediate development, reduce potential, preventing full spontaneous and directed mental development. One of the types of difficulties faced by students in such situations are difficulties in performing counting operations. The psychological complexity of the counting activity is due to the need to operate with abstract concepts that reflect the relationship of things in reality. The lack of sensory basis complicates the process of assimilation of the concept of “account” and the ability to perform counting operations.

Within the framework of the psychological approach, the account and counting operations meet all the characteristics of intellectual activity. In connection with the psychological structure of activity (V.V. Davydov, P.Y. Galperin, A.V. Zaporozhets, A.N. Leontiev, S.L. Rubinstein, D.B. Elkonin etc.) account is the activity inherent in all activities characteristics: purpose, means (counting) and outcome (in the form of the resulting number as an indicator of a certain class of sets). Great importance, as in any other activity, in the process of counting is given to the motive. The creation of a motivational basis provides preparedness for the performance of activities, facilitates the process of understanding it and contributes to its completion to obtain the final result.

The mental functions underlying the formation of counting operations include spatial representations, visual-motor coordination, auditory-speech and visual memory, optical-spatial gnosis and praxis, finger gnosoprisis, motor skills, temporal and quantitative representations, logical operations, thinking, perception and reproduction of rhythm, lexical and grammatical structure of speech (L.B. Baryaeva, A. Germakovska, R.I. Lalaeva, A.R. Luria, L.S. Tsvetkova etc.). The lack of formation of even one of these functions leads to difficulties in the implementation of operations of counting activities and obtaining the wrong re-
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result, so for its successful implementation, students need to form all the functions that ensure its flow.

In case of unformed counting activity already in the first grade, students with special educational needs may experience manifestations associated with the difficulties of implementing one or all components of the flow of this type of activity: motivational-target, operational and control-evaluation. When the motivational-target component is not formed, difficulties are noted to concentrate attention on the performed activity for a long time, periodic distraction to extraneous stimuli; decrease in cognitive activity, cognitive interest. In case of unformed operating component the following problems may take place: the orientation of the number line with numerals and comparing them with each other; the orientation of the sequence number series if possible, experiencing it visually; the difficulties of using arithmetical signs “more”, “less”, which leads to the inability to perform counting operations with no practical basis, the use of items, cards with pictures of objects, number series, i.e. marked difficulties of the transition of the accounting activities in the future in terms of internal speech and mental activity. The unformed control and evaluation component is characterized by the inability to retain intermediate results in memory; difficulties in detecting errors when performing counting activities, lack of criticality to the result. However, it should be noted that the performance of tasks increases with the guidance and training of an adult and the ability to visually perceive the numerical series.5

Given these difficulties one of the important approaches of providing special pedagogical assistance for pupils with special educational needs is a competence-based approach, which focuses on the formation of their ability to effectively use knowledge and skills to solve problems.6 This approach focuses on the formation of students’ practical skills related to the performance of counting activities and mathematical knowledge in general, the accumulation of practical experience to solve practical and mental problems in life situations. At the same time, in the process of learning, the activity-practical component of the educational process of students with special educational needs becomes of great importance.7

5 Н.В. Крюковская, Использование нейропедагогического подхода при формировании счётных операций у учащихся с нарушениями психического развития (трудностями в обучении) в I классе (в помощь педагогу), «Специальная адукацый» 2017, No. 6, pp. 3–9.
At the beginning of the school year, students are diagnosed to determine the directions of further correctional and pedagogical assistance. In the study of students at the beginning of the first grade diagnosis is aimed at studying the formation of cognitive processes that provide preparation for the assimilation of counting activities: visual perception, memory, spatial representations, thinking, thought operations (analysis, synthesis, comparison, generalization), arbitrary attention. In addition, it is necessary to study the formation of the main components of the activity: planning and self-control. If one or more of these indicators are not formed, students will have difficulties in mastering mathematical knowledge and skills in general, and in mastering counting activities, in particular. Therefore, depending on the identified features, the directions of correctional and pedagogical assistance to students with special educational needs are planned.

The examination of students, starting from class II for primary schools, attention is given to studying the formation of countable activities in particular, such indicators as: the naming of numbers entry of numbers, playing numbers from the beginning of the numeric range and with a given number, place the number in the number series, the knowledge of the composition of the number, determining the neighbors of numbers, performing arithmetic operations of the first and second degrees, possession of mathematical vocabulary, comprehension and writing of mathematical signs. Special attention in the survey process is paid to the way students perform the task. If the student performs the task completely independently, focusing only on the verbal instruction, it can be concluded that the relevant skills are formed in the area of actual development and do not require corrective work. These skills can be used as a basis for the formation of new skills during remedial classes. If the proposed tasks students are not able to perform even with the help of an adult, it means that the relevant skills are not included in the structure of mental activity at the moment. If the student has difficulties in performing the proposed tasks on their own, but it is possible to perform tasks with the help of a resource teacher, this means that the relevant skills are in the zone of immediate development and requires their inclusion in the content of correctional and pedagogical assistance. To do this, it is necessary to determine the reasons why the student can not perform counting activities, i.e., to study the level of development of cognitive processes and performance indicators, which are studied in students of the first grade. When identifying the lack of formation of certain cognitive processes and performance indicators, the directions of providing correctional and pedagogical assistance to students with special educational needs are also determined in order to form their ability to carry out counting activities.

In the framework of the competence approach, it is assumed to take into account the features of motivational-target, operational and control-evaluation components of activity, each of which is characterized by its own characteristics in students with special educational needs. At each of these stages, the resource
teacher uses certain techniques and means to ensure the success of mastering the formed skills. Selection of means and methods is carried out on the basis of qualitative analysis of the structure of counting activity of each individual student and allocation on this basis of directions of providing correctional and pedagogical assistance. This approach ensures that the individual characteristics of students and the effectiveness of the resource teacher activities.

To form the motivational-target stage, the resource teacher works to create interest both at the beginning of the correctional lesson and throughout it when presenting specific tasks. At the beginning of the correctional lesson, the resource teacher uses techniques to create an installation for the performance of activities throughout the lesson: the creation of a problem situation; the introduction of a fairy-tale character. During the lesson, when presenting the task and its implementation, the following techniques can be used: visual support of the proposed task, an interesting form of presentation of the task, reliance on the life experience of students, emotional presentation of tasks by the resource teacher, positive assessment of students’ activities.

At the operational stage, activities are carried out to form cognitive processes, as well as planning and self-control, i.e. those functions that ensure the performance of counting activities. The peculiarity of this stage is that generalized skills are formed, allowing the student to apply them in the future to solve various problems both practical and mental content. These skills include three levels of organization, which are consistently implemented in the course of correctional work: visual level, verbal instruction and students’ own verbal designations. Reaching the last level indicates the transition of this skill completely in the zone of actual development.

In order to activate the control and evaluation stage, students with special educational needs are developing the ability to compare the results with the expected ones, i.e. to carry out a conscious attitude to the result of their activities. The implementation of these stages is carried out within the framework of correctional and pedagogical assistance to students with special educational needs.

We will allocate the main directions of formation of counting activity at students with special educational needs on correctional occupations in the course of rendering correctional and pedagogical help and we will designate their main contents taking into account the competence approach.

The first direction—the formation of visual perception—is the most initial direction of correctional and pedagogical assistance, as perception in general provides information about the objects and phenomena of the world, thereby contributing to the accumulation of ideas and their preservation in memory. For realization of this direction real objects and their sign substitutes are used – subject pictures by means of which the system of sensory standards is formed; and also ability purposefully to examine objects; to notice their difference and similarity in color, the form, size. Students are offered tasks for the selection of features
and parts in objects, comparison and grouping them by external properties (color, shape, size), recognition of objects in noise conditions (overlapping of one object with another, the contour image of the object, the image of the object with the absence of some parts, superimposed contour images of objects familiar to students), the location of objects in a row in descending or ascending order of a given feature.

This direction cannot be pursued in isolation from the rest of the directions and accompanies them continually. This is due to the fact that at the initial stages of education, students with special educational needs often dominate the right hemisphere, which is responsible for subject-practical activity and interaction with specific subjects of the world. In addition, the counting activity itself is initially carried out with the use of specific objects and only after its formation in the practical plan, its transition to the mental plan gradually takes place. Therefore, students should be able to perceive holistically any object of the world and include it in the system of practical actions.

Memory formation involves the use of the following tasks: memorizing students with special educational needs of complex instructions, a certain number of objects with subsequent reproduction; retention in memory of the sequence of proposed actions, instructions throughout the entire task, intermediate results of activities. The resource teacher also selects tasks for retelling the text based on the plan (compiled by the resource teacher or in joint activities with the student), key words and phrases (highlighted after reading and understanding the content of the text) and without supports on their own. Such tasks form the ability to notice the main thing and at the same time aimed at the development of mental operations.

One of the important directions of correctional and pedagogical assistance is the formation of spatial representations. This is due to the fact that the spatial factor is of particular importance from the very beginning of the formation of the counting activity. Spatial representations are the core structures of human mental development, they are the basis of basic algorithms for the formation of cognitive activity.8

As shown by genetic observations, visual orientation in space is only the latest and collapsed form of spatial perception. At the early stages of develop-

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ment, the structure of spatial orientation includes practical activities of the child, the possibility of which is formed at the end of the first year of life simultaneously with the strengthening of the joint work of the visual, kinesthetic and vestibular analyzers⁹ noted that in the first stages of the child’s development, the representation of numbers and counting operations are visually effective and involve the placement of recalculated elements in the external spatial field. Gradually, these operations are curtailed, move into the inner plan and are replaced by visual-figurative, and then abstract arithmetic thinking. But even at these stages, the representation of the number and counting operations continue to preserve the spatial components. Having mastered the decimal system, the child for a long time continues to have its elements in a known spatial scheme, in which individual numbers take their place. According to L.S. Tsvetkova¹⁰, violations of spatial syntheses are accompanied by violations in counting operations.

The formation of spatial representations involves the use of correctional classes tasks selected with the following components:

1) skill show parts of own bodies, parts of bodies human, behind contrary, and parts of bodies individual in proposed image. Within the framework of this block, students are offered tasks for orientation in the scheme of their own body, especially in the right–left directions; for determining the parts of the human body located opposite or the hero in the story picture;

2) the ability to determine the spatial location of objects in the environment, when the reference point is the student himself (which is in front, behind, above, below, right, left of the student), when the reference point is another subject, fixed by the resource teacher or determined by the student himself (right from, left from, above, below, from, front, behind). This component assumes: orientation in three-dimensional space. Students are offered tasks involving the display of objects located in the environment in a given direction; the location of objects taking into account the scheme of the student’s body according to verbal instructions (right, left, top, bottom, front, back); performing movements in the process of physical activity; movement in a given direction;

3) the ability to navigate in two-dimensional space (on a sheet of paper). For this purpose, students are offered the following tasks: the location of objects on a sheet of paper; drawing missing parts of the object in a given direction; shading objects in a given direction; finding the depicted object in the scene picture according to the verbal instructions indicating

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¹⁰ Л.С. Цветкова, *Нейропсихология счета…*, op. cit.
its location; tracing mazes based on the proposed scheme; performing graphic dictation, reflecting the sequence of movements in the appropriate directions; the location of objects on the desk according to the instructions; drawing lines of different colors on the edges of the sheet (above – blue as the sky, the bottom is brown as the earth, left green as the trees outside the window, right – yellow as the wall) (“frame space”); painting of objects according to their spatial location on the sheet of paper; graphic symbol of the direction.

Within each component, a vocabulary is formed that denotes spatial representations. Students describe the trajectory, characterized by the location of the object in the environment, answer questions. In addition, attention is paid to the development of coherent speech of students with special educational needs.

In the course of the student’s survey, it becomes clear within which component difficulties are noted, which spatial representations are not formed. It is with the formation of skills related to this unit that work begins with students with special educational needs in correctional classes.

The next direction is the formation of thinking. To learn school numeracy skills, students must be formed a certain level of verbal and logical thinking. In this case, they will be able to operate with abstract concepts and numbers. For realization of this direction various tasks can be offered: establishment of sequence of events; search of an excess subject in group; establishing cause-and-effect relationships (determining why an event occurred, for example, why the ground is wet, and what will happen next, for example, if the sun comes out); explaining the meaning of the text listened to or read; continuing the story; explaining proverbs and sayings, etc.

This direction is closely related to the formation of mental operations (analysis, synthesis, comparison, generalization). Students with special educational needs perform tasks to establish patterns in a number of figures and the continuation of the series on the basis of the selected patterns; search for elements from which you can make a figure; the allocation of objects in essential features; comparison of objects based on essential and situational features; classification of objects into groups, taking into account essential features; search for identical, similar and different objects, etc.

The establishment of regularities in a number of figures at the same time allows to develop analytical and synthetic activity and perception. To determine the pattern, students initially need to highlight the properties of the figures (force, color), compare the figures with each other to highlight similar and distinctive features. Only on the basis of this, students will be able to identify the sequence of occurrence of a certain feature and the pattern of its repetition in a number of figures.

The selection of essential features in objects requires a certain level of formation of verbal and logical thinking. This type of thinking at the initial
stages of learning in students with special educational needs is at a low level of
development, which creates significant difficulties for the allocation of essential
features in the objects and summarizing them under the generalized concept.
Therefore, the resource teacher activates the work on the formation of verbal
and logical thinking to create a full-fledged basis for the ability to distinguish
essential features in objects, which will ensure the assimilation of concepts in
the learning process. Only on the basis of the appearance of the opportunity
to allocate significant features in objects, students will be able to compare dif-
ferent concepts with each other and classify objects according to the specified
resource teacher feature.

The development of thinking and mental operations will be possible only if
students with special educational needs are included in the first practical and then
mental activities, during which the necessary skills will be formed.

For each class, the resource teacher develops voluntary attention. First,
the job offered on the basis of creating interest with colourful, bright objects and
images and promotion on the basis of performance of tasks (emoticons, cards,
labels); then focuses on the importance of skills in activities of students with
special educational needs based on their life experience and the result, then stu-
dents are proposed to perform similar tasks with fixation in the right direction. In
this case, a prerequisite is to pronounce both the process of performing the task
and the result obtained. At the end of the task, students submit a verbal report on
the sequence of actions performed. The arbitrary attention thus formed gradually
becomes a skill of control and provides students with a conscious and meaningful
performance of activities.

The implementation of all of these areas in remedial classes within the com-
petence approach involves the formation of skills, taking into account a certain
sequence: showing the performance of a specific task in practice by a resource
teacher; performing on display in the subject-practical activities of students; ver-
bal designation of actions by students, including a verbal report on the implement-
ed actions; consolidation of the acquired skills when performing similar tasks.

Demonstration of concrete actions in practical activity by the resource
teacher is the first stage of formation of skills. Its implementation is carried out:
when performing the necessary visual practical actions by the resource teacher
based on the visual perception of students, as well as using various interactive
tools to improve the understanding of the content of actions. In all cases, the dis-
play is accompanied by a verbal description of the action by the resource teacher,
which is specific and accurate. The methods that the teacher uses in his activities
at this stage are the display of the action, accompanied by a verbal description;
explanation of the importance of mastering the studied action; the use of fairy-
tale characters to present the problem to be solved.

Performance of actions on display in subject-practical activity represents
repetition by students of actions of the resource teacher on the basis of imitation
and verbal support. Implementation of this stage is carried out taking into account the following conditions: work in a group of two students; performance of tasks on the basis of imitation; reliance on visibility when performing the task; planning the result before the task.

Verbal labeling of student actions, including a verbal report, is used after students perform an action based on imitation. This is due to the dominance of the right hemisphere and the difficulties of independent control of the task. At this stage, students use the technique of operational pronouncing the performance of the action.

Consolidation of the received skills at performance of similar tasks assumes formation at students of the generalized ways of actions. For their consolidation and the process of interiorization (transition to the internal plan), an important condition is the variation of situations and tasks. One and the same skill the student must work with different material in different situations. This will ensure the assimilation of the principle of the task, and not just the outer shell of the actions performed.

Thus, within the framework of all the considered areas, the survey results highlight the skills that are to be formed in correctional classes. To use the competence approach in the classroom, it is necessary to create a practice-oriented basis, to include students with special educational needs in the process of activity, to develop tasks that will allow to form appropriate skills. The subsequent consolidation of the formed skills in different situations will allow to transfer them to the zone of actual development, thereby expanding the opportunities of students and creating a full-fledged basis for mastering the counting activity and preparing them for independent life in society and solving various life situations.

References


Балашова Е.Ю., Исследование оптико-пространственных функций в норме, «Журнал прикладной психологии» 2006, No. 6-1, pp. 36–44.

Баряева Л.Б., Интегративная модель математического образования дошкольников с задержкой психического развития, Москва 2005.


Глозман Ж.М., Нейропсихологическая диагностика в дошкольном возрасте, Санкт-Петербург 2008.
Давыдов В.В., Проблемы развивающего обучения, Москва 2004.
Запорожец А.В., Психология действия, Воронеж 2000.
Ковязина М.С., Пространственные представления и межполушарное взаимодействие у младших школьников, «Вопросы психологии» 2009, No. 5, pp. 40–53.
Крюковская Н.В., Использование нейропедагогического подхода при формировании счётных операций у учащихся с нарушениями психического развития (трудностями в обучении) в I классе (в помощь педагогу), «Специальная адукацый» 2017, No. 6, pp. 3–9.
Лурия А.Р., Высшие корковые функции человека и их поражения при локальных поражениях мозга, Москва 1962.
Рубинштейн С.Л., Основы общей психологии, Москва 1989.
Семано Н.Я., Методика формирования пространственных представлений у детей дошкольного и младшего школьного возраста, Москва 2007.
Семенович А.В., Умрихин С.О., Пространственные представления при отклоняющемся развитии (методические рекомендации к нейропсихологической диагностике), Москва 1998.
Фигурин Н.Л., Денисова М.П., Этапы развития поведения детей в возрасте от рождения до одного года, ред. Н.М. Щелованов, Н.М. Аксарина, Москва 1949.