

Guiding left-handed students to a healthy lifestyle during the period of adaptation to school education

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Abstract: Directing left-handed students to a healthy lifestyle during the period of adaptation to school education is one of the urgent problems facing us today. During this period, psychological restructuring takes place. This requires not only a mental state, but also great physical endurance from the student. A child's readiness for school is determined by meeting a number of requirements. These include: general physical development of the child, acquiring a sufficient amount of knowledge, acquiring "everyday" skills of self-service, the culture of behavior, communication, primary work; good command of speech; prerequisites for mastering writing (development of small hand muscles); ability to cooperate; desire to learn. It is possible to talk about the end of the adaptation period for left-handed students of the 1st grade only in the IV quarter. Because the adaptation of students of some classes is not limited to the first 3-5 weeks of training or the first quarter, as some teachers believe.

Keywords: healthy lifestyle, adaptation, rehabilitation, healthy physical education, functional laterality profile, sinistrality, left-handedness, left-handed schoolchildren

1 Introduction

If your child uses his left hand more when doing something, this is just an external sign of the child's brain structure. Experts prohibit forcing left-handers to work with the right hand. Because the brain is genetically structured, its forced modification can lead to negative consequences.

The left hemisphere of the brain is responsible for speech circle formation, right-handed writing and left-handedness. Therefore, retraining the left hands is an intervention in a serious process of brain mechanisms, especially speech activity. This can lead to child neurosis. The results of retraining the left hands can cause signs of stuttering.

2 Literature analysis and methodology

According to the scientific research institute, 71% of left-handed students are pressured by teachers and parents to teach them to write with their right hand. This teaching is effective in only 26% of boys and 33% of girls. But the negative consequences of retraining are 100%.

Globally, left-handed people make up about 12-13%. There are also hereditary left-handed people. It is passed down from generation to generation just like a disease.

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Scientists believe that left-handedness can be related to genetics. According to him, genes are identical in twins born from the same egg cell. However, in 17% of such couples, the working hands are different. Sometimes left-handedness in the fetus occurs as a result of external influences. For example, according to research, if the mother was under frequent mental stress during pregnancy, the chance of the baby being born left-handed increases.

Basic elements of leading educational activities, necessary knowledge, skills and abilities are formed in elementary school students. During this period, forms of thinking gradually develop, the system of scientific knowledge is more widely assimilated, and the state of development of thinking is ensured. At this time, necessary conditions are created for independent direction in education and everyday life. During this period, psychological reconstruction is carried out. It requires not only a mental state, but also great physical endurance from the student.

School is the beginning of a person's social existence as a subject of activity. In this task, the elementary school student is distinguished, first of all, by his readiness for it. It is determined by the level of physiological (anatomical and morphological) and mental, first of all, intellectual development, which provides an opportunity for learning. The main indicators of the readiness of students for school: the formation of his internal position, semiotic function, arbitrariness, the ability to pay attention to the system of rules, etc.

Preparing to study at school means entering the new world, the world of adults, joy, forming an attitude to knowledge. It means to be ready for new responsibilities, to be responsible for school, teacher, class. Anticipation of new knowledge, interest in them is the basis of educational motivation of a small student. Interest as an emotional experience of the need for knowledge, internal motivation of educational activity, is based when the young student's need for knowledge "satisfies" the educational content that satisfies this need.

A child's readiness for school is determined by meeting a number of requirements. These include: the general physical development of the child, the acquisition of a certain amount of knowledge, the acquisition of "everyday" skills of self-service, the culture of behavior, communication, primary work; good command of speech; prerequisites for mastering writing (developing the small muscles of the hand); ability to cooperate; desire to learn.

Researchers studying the growth, development, and health status of left-handed children emphasize that left-handed children require a special approach and special attention, especially when they enter school. Many consider them to be the cause of excessive anxiety at school, mental state at school, and difficulties in the learning process. School, studying, especially in the first months, in the first year, creates long-term intense excitement in some children, causes severe fatigue and increases the demands on personal qualities. A new team, new friends, new requirements are not easy for any child, especially for a left-handed child, because the characteristics of interhemispheric asymmetry affect the body's response to any external influence.

It takes a long time for a child to adapt to school. Surveys show that parents "take" more than a week or two to adjust, and teachers more than two or three weeks. As you can see, the actual terms are twice as many.

In addition, high levels of anxiety are associated with excitability, sensitivity, self-doubt, responsibility, conscientiousness, and a good understanding of social norms in left-handed students. For these children, communication with peers is really necessary and serves as a source of positive emotional energy for them.

The emergence of conflicts in relationships with adults and peers is a strong psychotraumatic factor for left-handed people and causes additional difficulties in the process of adaptation to school. Many parents and teachers complain that left-handed children are more emotional (they quickly get upset over "little things", they quickly feel any harsh words, insults from their peers and very sensitive to misunderstanding). We didn't write "complaining

" by accident, really , and maybe these complaints are the result of not understanding the characteristics of the child, wanting to see him like others.

Researchers, parents and teachers often emphasize the tendency of a left-handed child to remain alone, and it is difficult for him to communicate not only with adults, but also with his peers. This strongly expressed tendency is called autism. Autism (from the Greek autos " self ") manifests itself in indifference to social relations, withdrawal into the world of inner experience. Such children are prone to repetitive actions, using their own invented language. The child, as it were, leaves the truth to his own world.

There are functional developmental characteristics of left-handed children noted by almost all researchers. They should be taken into account in the educational process. This is primarily a better recognition of verbal stimuli than non-verbal (schemes, modules). Left-handed students perform worse on visuospatial tasks than on verbal tasks.

3 Discussion and results

In teaching, we often use models, schemes, which means that it can be difficult for children. Because left-handers confuse right and left, sometimes up and down.

In recent years, the school has abandoned the practice of retraining left-handed students to write with their own hands. It is very important to determine the direction of the child's " hand " before the beginning of education (in kindergarten or when he is admitted to school) .

In the activities of left-handed students, the features of the organization of his knowledge can have the following forms:

1. Decreased ability to coordinate visual - movement: students cannot perform the task of drawing graphic images well; they have difficulty keeping a line while writing, reading.
2. Disadvantages of spatial perception and visual memory, originality of writing, omission and rearrangement of letters, optical errors.
3. Weakness of attention, difficulty in switching and concentration.
4. Speech disorders: errors in sounds and letters.

One of the most important characteristics of left-handed students is their emotional sensitivity, increased vulnerability, anxiety, decreased performance, and increased fatigue.

Additionally, the fact that approximately 20% of left-handed students have complications from birth and birth trauma may not be truly significant .

Increased sensitivity of left-handed students is a factor that significantly complicates adaptation at school. For left-handers, entry into school life is slow and painful.

When working with left-handed students, it is necessary to take into account the specific features of developing their educational skills, first of all, their writing skills.

Left-handed students have their own set of writing techniques: left-handed students find it equally awkward to write to the right and to the left. Because when writing, he blocks the line with his working hand . Therefore, you should place your hand so that the line is open. In this case, the way of holding the handle can be different: as usual, like a handstand, or upside down, when the hand is on the line.

When learning to write, left-handed students should choose the option that is convenient for them. It should be noted that left-handed students often draw images from left to right and from top to bottom. Their writing is not consistent, but has more breaks. Letters are connected by short straight lines. Remember: when teaching left-handed students to write, special tools for left-handers should be used. Requiring left-handed students to write letters without breaking their hand is not very effective. Because it takes a lot of work to achieve this. In the classroom, it is recommended that left-handed students stand to the left of the window.

Another factor to consider is that it makes learning easier for left-handed students. This is due to the consideration of the leading eye when choosing a student's workplace. The student's desk should be placed in such a way that the information area is compatible with the leading

eye. So, if the left eye is the leader, then the blackboard, the teacher's workplace should be in the left field of vision of the student. Such recommendations were made by scientists Yu.V. Mikadze and NK Korsakova [100] studied in their research work. We believe that taking the dominant eye into account when placing students in the classroom is important not only for left-handed students, but for all other students as well.

Special measures aimed at developing writing skills and competence in left-handed students are necessary:

a) visual - movement coordination; b) accuracy of spatial perception; c) visual memory; g) visual - figurative thinking; d) the ability to process information holistically; e) motor skills; or) phonemic hearing; j) speech.

There is a need to involve a speech therapist, a speech therapist, a psychologist in the organization of the development work mentioned above.

Thus, a left-handed student can face a lot of problems at school. But it is worth noting that left-handedness is not a risk factor in itself, but a risk factor associated with certain disorders and developmental defects that may occur in a particular child. In any case, all left-handed children, especially at preschool age, will have serious complications in mastering educational activities if their full mental development is not taken into account.

However, modern school programs aimed at developing the logical character, that is, the left-brain components of thinking, do not allow to realize the potential of left-handed students who are oriented to the right brain. At the moment, special research shows the relatively high creative potential of left-handers, which is the basis for studying problems and coming to the necessary conclusions.

If the student writes with the left hand, and therefore this process is at least partially regulated by the right hemisphere, forcing him to write with the right hand means creating an additional load on the tasks of the left hemisphere's systems. It should not be understood as a simple process, because it is a complex process. Failure to do so can have dire consequences.

Learns struggling students to write with their "correct" right hand. But during this time, the feeling of self-doubt settles in his heart, the desire to learn fades. As a result, learning begins to be associated with unpleasant things. Then, in order to assert himself in the student body, the left-handed student starts bullying. Thus, the school, the teacher, may unwittingly train the ordinary left-handed student to become a harmful delinquent. This issue was comprehensively analyzed in the scientific research of the Russian academic Yu.K. Babansky [21].

There is another, material aspect of this problem. All instructions, process descriptions, and recommendations in writing lessons in the initial period in elementary grades begin with the following words: **"Take the pen in your right hand, hold the notebook in your left hand..."**. It is not even allowed to think that a person can be left-handed. In addition, all educational materials are adapted for children.

Let's look at the physiological characteristics of left-handed students.

1. Morphological features:

a) slightly larger than the left arm; b) slightly wider than the nail of the left little finger; c) the veins on the back of the left hand are more developed; g) facial expressions on the left half of the face are more mobile.

2. Psychological characteristics:

a) poor hand-eye coordination. It's bad hand writing, graphic images in drawing difficulties to be possible;

b) speech disorder I. Makarev in the book "If your child is left-handed" [102] provides information about the aging of every third left-handed student; c) characteristics of spatial perception. Violation of proportions of figures and figures, weakness of eye memory; g) difficulty concentrating and switching; d) emotional and psychological characteristics; e) increased emotional sensitivity; or) pain (weakness); j) rapid fatigue and limitation of work; z) high level of creativity; i) highly expressed talent for original artistic creation; k)

impressionability and hatred; l) attachment to various fears (shyness); m) low level of self-control; n) low emotional mood (almost always a bad mood); o) compatibility (tendency to passive perception of reality); p) drowsiness; r) increased level of anxiety; s) aesthetic appeal.

By giving a little more attention to the left-handed reader, we get a more confident reader who succeeds.

What should be the psychological support of a teacher to a left-handed student at school? Before discussing teaching techniques and specific mistakes of left-handed students in detail, there are a number of questions that are frequently asked by teachers, parents and other interested parties.

So, a few key questions are as follows. Is this task really worth it, even if every classroom doesn't have left-handed students? How to teach left-handed students in class if they do not understand the explanations given by the teacher? How to ensure the successful education of such students? Should parents be involved in helping their students? It is a pity that this problem has existed for a long time and now there is no way to eliminate it. It is worth noting that the group of left-handed learners is broader and not limited to left-handed learners, but also includes students with hidden left-handedness and ambiguous (writing with two hands) possible. However, according to the psychophysiological characteristics of these students, they are very diverse. In the discussed category of students, delays and imbalances in the formation of higher mental functions are often observed, for example, they are manifested in learning mathematics, calculation. But there are a few left-handed students in some classes, it could be argued that they are not the majority. Obviously, retrained left hands don't count, but so-called " speech therapy . " Is it worth the effort? With which students might other teaching methods be useful? But here is a list of categories of students who are better taught using the right-brain learning method (after all, most of the generally accepted pedagogical methods focus on left-brain perception). Almost half of today's 1st graders come to school with an incomplete preference for the leading eye or ear. The introduction of four years of primary education for students from the age of six and a half has led to schoolchildren who, according to age characteristics, have just begun to use the left hemisphere, their contribution to psychological functioning still little. These students are distinguished by emotionality, involuntarily, and cognitive activity has a holistic and figurative description, and has intuitive principles. Many teachers working with such classes, especially with complex textbooks, face a number of difficulties due to the factors listed above.

Of course, not all of the student groups on the list can be casually called right-brained. But in each class, students learn with one hemisphere of the brain dominant (the one best suited to learning), right brain and left brain . And ideally, you want to teach every student, so the teacher's job will be more successful if he can convey the essence of the explanation to each student.

The answer to the second question is clear: of course, teachers should teach, especially if they know how to do it. It remains to realize the existence of such a problem, the need to solve it and adopt some modern teaching methods. But parents also need to teach because students need help at home.

Most of the known teaching methods and ways have helped many students overcome their difficulties. Admittedly, there are teachers who successfully teach students with different psychophysiological abilities. Their work is adapted to all educational methods, the tasks are diverse, and the created educational situation stimulates the activity of one or another part of the class. This cannot but affect the success of every student. Therefore, the use of different teaching methods only enriches the activity of the teacher.

Dry, abstract, sequential repetition of learning material is not suitable for teaching right-hemisphere dominant students. Their memory is involuntarily and remembers a bright image better. Thinking is emotional and intuitive, so it is necessary to create a problem situation for constant participation in the lesson. It is better to explain new theoretical material on

practical tasks with active use of intonation possibilities of speech and with visual reinforcement. Reading the rules in the textbook, because it is closer to the study of a scientific text, is perceived worse by the right hemisphere than a work of fiction, and therefore working with the textbook should be specially taught, as well as the situation of the problem. must understand. Reading assignments often make it difficult for a right-brain learner to understand the content. Such students always move from one thing to another, because after reading the condition, they must first imagine the situation, and then they must solve this specific problem coherently.

If it is necessary to find, for example, the answer to riddles, rather than abstract numbers in the textbook, it is easier for the student to perform the tasks of the right brain. In the classroom, in addition to right-brain demands, there are also left-brain demands for which abstract, coherent explanation is only useful, and both must be taught. It is good that both learning methods are equally suitable for non-hemispheric dominant students.

Of course, students with so-called learning difficulties are concerned, but the use of the theory of gradual formation of mental movements, along with other methods, allows students to successfully cope with the program and with it. However, it is almost impossible to educate an unsuccessful student without the help of parents, so it is necessary to draw their attention to a number of important issues. Parents, who are the main partners of the teacher, should be addressed in this way. If a parent does not understand the difficulties of his child and does not believe in him, then what should he do?

First, it is necessary to properly qualify all difficulties of the student, and they can be both right-handed and left-handed. But academic delays occur in very healthy children, but go along with the individual pace of development. It is the duty of teachers, parents and, of course, psychologists to help left-handed students in time. Only then can a positive result be achieved, but not immediately. Ultimately, this allows the left-handed student to fully develop their knowledge and personality.

If earlier most of the students' difficulties were often incomprehensible, today they have been investigated and have universal approaches and directions of neuropsychological correction. But the hard work of a teacher is indispensable, and his main colleague is a parent. The child has no one else to hope for. Although left-handedness is not always bad for poor handwriting, missing letters and failure to learn the curriculum - in primary grades, underachievers and seeking advice from specialist centers Among the healthy children who apply, about 70% are left-handed students.

4 Conclusion

A professionally conducted neuropsychological examination reveals the objective causes of difficulties in students and at least helps to determine the ways of correction. True, this is only the first stage, but the one who walks the road will take it!

Psychologists warn desperate parents against such a radical step as changing the dominant hand. In this situation, the hand is a reflection of the brain organization of human psychological activity! Retraining can lead to the suspension of higher mental functions, and the results will not appear immediately. Left-handed students will have to deal with them again. Issues of retraining are solved only by experts, and a positive decision can be made only if the retrained left hand uses the right hand before the start of regular writing or, in extreme cases, during the first days of training. But such a step is not always successful.

Externally assigned "justice" may turn out to be stronger, because the retraining was carried out during the formation of motor functions and became a complex system of division of tasks between the hemispheres. For this reason, parents do not have the right to act arbitrarily and risk any apparent controversy. They pose a mental and physical risk to the health of their children rather than to their own health.

If the child does not go to school yet, but does a lot of work with his left hand, or there are worrying factors in the form of difficulties in mastering the first educational wisdom, then the parents independently, without consulting a specialist should not make a decision.

If the child turns out to be a leading left-hander, then it is necessary to teach a "real" left-hander, turning his features into values, relying on intuition and feeling, believing in a sincere desire to help, and offers a way to success with questions. Taking into account the causes of misunderstandings and the plasticity of the child's brain, it is necessary to solve the problems that have arisen by relying on different teaching methods and an individual approach.

References

- [1] Beglova, L. I., Skobenko, L. D. (2018) Organization of the learning process for left-handed children in elementary school. *Innovatsionnaya nauka*, No. 9, pp. 50-53.
- [2] Bezrukikh, M. M. (2008) *Left-handed child at school and at home*. Moscow: VentanaGraf, 240 p.
- [3] Bezrukikh, M. M., Efimova, S. P., Kruglov, B. V. (1995) Why is it difficult to learn? M.: Family and School, 205 p.
- [4] Beridze, A. D., Sokolova, E. N. (2004) Teaching writing to left-handed children. *Nachalnaya shkola*, No. 2, pp. 7-15.
- [5] Alijon R Khamraev. Modeling Teacher's Activity in Designing Students' Creative Activities. *Eastern European Scientific Journal*.2019/5/10/
- [6] Avezmurodovich, O. R. (2020). Difficulties in learning to write and read left-handed children. *European Journal of Research and Reflection in Educational Sciences*, 8 (8), 40-45
- [7] QO'LDOSHEV R. Chapaqay bolalarni maktabga qanday tayyorlash kerak //Pedagogik mahorat. Ilmiy-nazariy va metodik jurnal Buxoro 2020-yil, 3-son 145-147 b.
- [8] Qo'ldoshev R.A. LEFT-HANDED CHILDREN AND THE LEARNING PROCESS// EPRA International Journal of Research and Development (IJRD) Volume: 5 | Issue: 10 | October 2020 277- 281
- [9] Qo'ldoshev A. R. Psychological aspects of left-handedness: concept, causes, and peculiarities //Psychology and Education Journal. – 2021. – T. 58. – №. 1. – C. 4981-4988.
- [10] R. Kuldoshev et al., E3S Web of Conferences **371**. 05069 (2023)
- [12] A. Hamroyev, H. Jumayeva, E3S Web of Conferences **420**. 10007 (2023)
- [13] Qo'ldoshev R. A. Boshlang'ich sinf chapaqay o'quvchilarini yozuvga o'rgatishning metodik asoslari (pedagogika fanlari bo'yicha falsafa doktori).Termiz – 2021.
- [14] Hakimova N., Dilova N. Formation of social competences of elementary school students in extracurricular activities //E3S Web of Conferences. – EDP Sciences, 2023. – T. 420. – C. 10020.