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Typhlotechnic Tools and Methods of Correct Use

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Abstract: This article provides information on the correct use of typhlotechnical means by visually impaired students of primary school age. In particular, it is emphasized that the use of a pad as a primary teaching tool for learning Braille in the early stages of education is effective. In addition, instructions are given on compliance with technical and hygienic requirements when using a writing instrument, a special Braille notebook, as well as on how maintaining an upright posture contributes to the correct development of the shoulder and spinal bones.

Keywords: A child with visual impairment, six dots, device, pad, stylus, special braille paper, stylus.

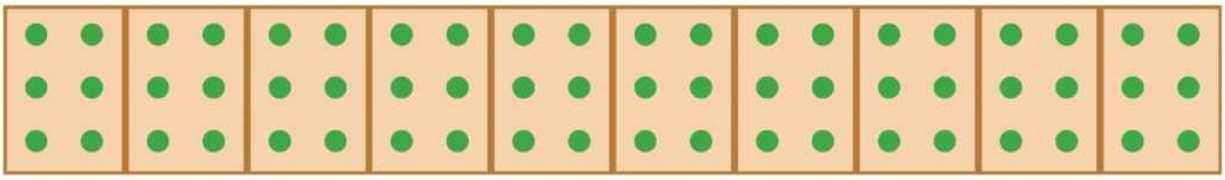
Introduction: Thanks to writing, people were able to make their thoughts and words understood by others. Before letters were created, they did this through pictures and symbols. This letter is called a picture or a stamp. Later, people invented the alphabet. Each letter represents a specific sound. Letters combine to form a word. We form sentences from words.

The most important of the written forms for children who are completely blind is braille. Typhlotechnics are actively used in the process of teaching this raised dot writing to blind students. Of course, the effective use of typhlotechnics in the process of teaching braille to a primary school student will achieve literacy in the child without excessive physical and mental stress. In this regard, choosing a block as the primary typhlotechnics tool is the right decision.

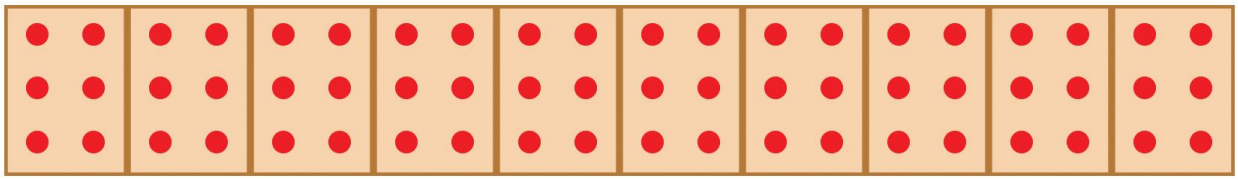
A block is a board that forms letters. It is appropriate to give 6-7-year-old blind children who are learning the elements of Braille the first ideas about the 6 dots and the location of the dots through this typhlotechnic tool.

Because a child with poorly developed fingertip sensations and motor skills feels the location of the raised dots best on the pad. It should be noted that since the location of the 6 dots on the pad is up to 8 times larger than the location of the dots on the device, the location of the dots in the right and left rows is somewhat easier to feel with the help of insufficiently developed fingertip sensations. It should also be noted that just as the use of the "from large to small" methodology is effective in forming the subject's imagination and fine motor skills of blind students, learning the rules of writing is also effective if it is initially carried out through the pad. Our experience has shown that using blocks with 10 squares, 30 cm long, for 6-7 year old students gives good results.

Empty box

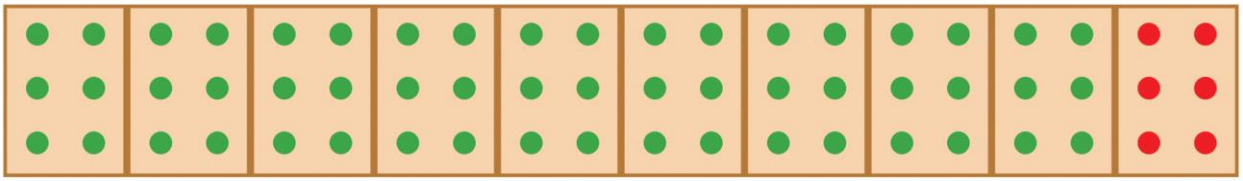


Special nails - a block filled with a pin



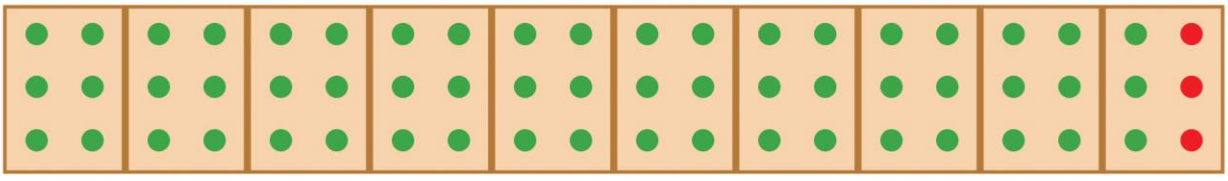
Making six dots on a block

Writing



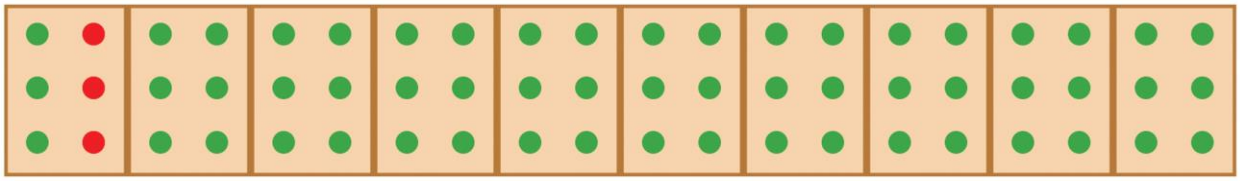
Creating the first, second, and third points from the right in the block

Writing



Creating the fourth, fifth, and sixth dots from the left in the block

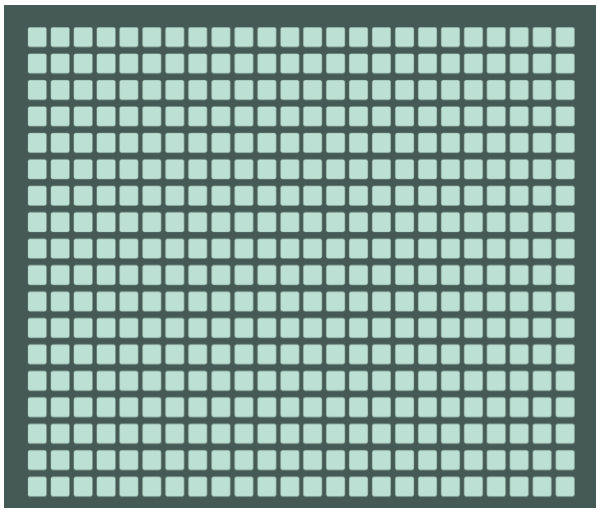
Writing



After learning how to write Braille on a pad, if the student can correctly place the six dots on the right, the first, second, third, fourth, fifth, sixth, and opposite dots, for example (1-4,2-5, and 3-6), it is advisable to stop working with the pad with such a student, because only the writing order of the raised dot writing is taught

through the pad.

In the process of learning the written dots or letters, the word is not read in reverse based on a mirror image. When the sticks are inserted into the hole of the pad, raised dots are not formed on its bottom and back. Therefore, it is necessary to teach elementary school students how to write from right to left on the pad. Only then will he be able to quickly and correctly develop the skill of writing from right to left on the device. On the contrary, if we regularly teach the child the Braille reading order on the pad, he will regularly repeat the cases of writing from left to right or writing letters backwards, contrary to the writing method on the pad. So, after 6-7-year-old students can feel the six dots through the fingertips, find the correct location of the dots and master the rule of writing from right to left (children with normal mental development), after a maximum of 4-5 weeks of training, the transition to writing on the pad and stylus, which are the main writing tools, indicates the good formation of the child's further educational activity - written speech. Traditional pads consist of 18 rows from top to bottom and 24 cells in each row. Its cells contain 6 dots, and letters and symbols are formed on the basis of these dots.

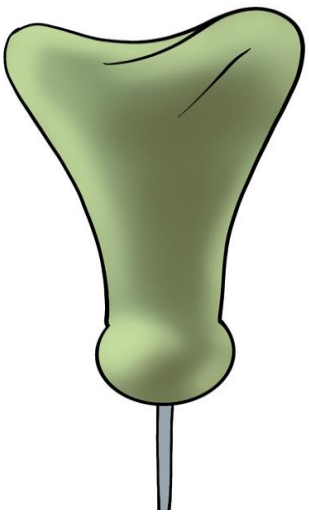


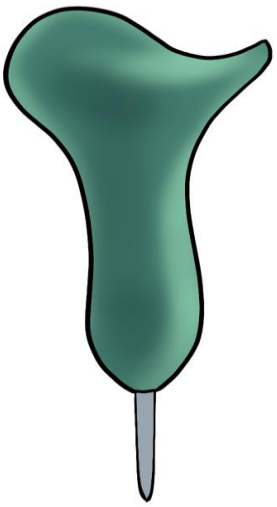
Braille writing device

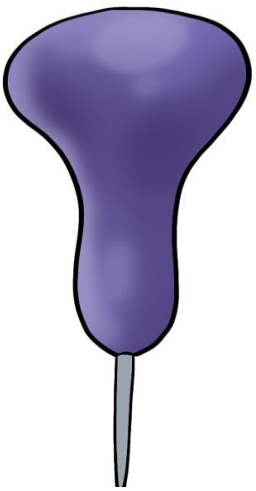
Open position of the device

The cells of the writing device are much smaller than the cells of the pad, and it is somewhat difficult to find the location of the dots under (inside) each cell, so it is necessary to provide children of primary school age with clear and complete information about the device and its cells.

Different types of writing pencils

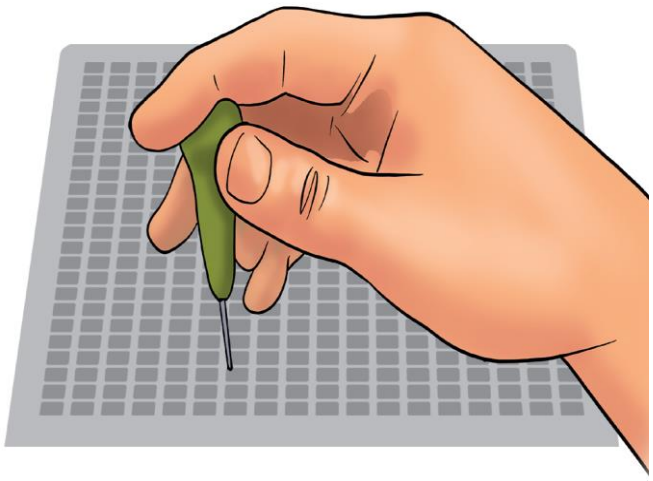






Styluses are made in different sizes and shapes, depending on the size of the user's fingers. The most important thing is to teach children of primary school age how to hold the stylus correctly. During the writing process, the right hand holding the stylus and the left hand controlling the cells should be completely flat on

the table from the elbow to the palm. This process, along with a clear feeling for the dots within the cell and an orderly control of the next cells to be written, The correct understanding and regular monitoring by



teachers of the fact that the child must strictly follow the rules of keeping the shoulders, head and body upright when using the device and stylus, otherwise a curvature of the spine in the neck and shoulder area will occur, will lead to the correct formation of the student's stature.

Another of the most important typhlotechnics is a braille notebook. The quality of this notebook is the main factor in the accuracy of the raised dots and the accuracy of reading. Since the paper of the braille notebook is thinner than the device and stylus, the following aspects are required when using it:

- The paper should be 160 mg;

- The pages of the notebook should be of high quality, dense and smooth;

- The paper should be odorless and made of environmentally friendly materials, without harmful substances;

- The notebook should always be kept clean, free of dust and stains;

- It is necessary to store notebooks on special closed shelves or in bags, protecting them from moisture and dirt;

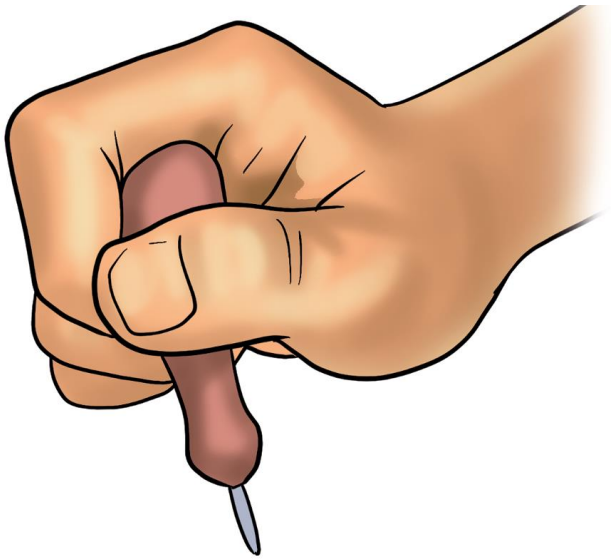
- It is recommended to store Braille notebooks in a dry, clean place with a relatively stable temperature (18-25°C) and humidity level of 40-60%;

- It is necessary to store them in a place protected from sunlight, as the paper can dry out and become brittle;

- Hands must be clean and dry before using the notebook;

ensures that the force expended during the writing process is kept within the norm.

- It is necessary to pay attention to the absence of oil,



water or other contaminants on the hands, as these can cause the embossed dots to fade or become dull;

- If the notebook is not used for a long time, it is recommended to store it in a special paper wrapper or plastic folder.

The peculiarity of teaching the Braille system using a stylus is that it is written from right to left, but read from left to right, and the image of the letters is reflected inversely in reading and writing. As a result of our research, it became clear that students make a lot of mistakes in expressing letters in opposite points. In the process of writing a letter, word, or phrase, pressing an extra point or omitting the required point causes errors.

So, in order to avoid such mistakes, students of primary school age must perfectly remember the location of the points on the stylus and correctly aim at the stylus. This process will ensure that the student will write quickly and without errors in the future, of course.

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