

TRANSFERRING UNIVERSITY TEXTBOOKS TO THE BRAILLE ALPHABET.

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Abstract: The topic of transferring university textbooks to Braille alphabet is the main means of writing and reading for many people, so the topic of transferring university textbooks to Braille alphabet includes many instructions. In the article, Topics such as how to create Braille, methods of converting textbooks and teaching materials to Braille, the average use of Braille in university curricula and the parts used can be seen.

Keywords: University textbooks, braille, testing and corrections, creation of point sets, 3D printers

Introduction. Braille is a raised-dot font for writing and reading by the blind, which is based on a combination of hexagonal dots. The sign, depicted by a combination of raised dots 0.6 mm high and 1.4 mm in diameter, is recorded in a cell measuring 4.2 mm x 7 mm. With a certain skill, text written in this way can be easily recognized by touch. The ease of reading signs and their compactness allow a blind reader to read the text quickly enough. Such a system of writing and reading was created by the French teacher Louis Braille (1809-1852). The alphabet, numbers, musical notes and any other printed symbols can be reproduced in the Braille system by various combinations of dots in a cell (cell). Braille notation is also used to write math symbols, equations, computer symbols, and to write foreign languages.

When blind or visually impaired children learn to read, Braille is the best way to develop spelling, grammar, and punctuation skills. In addition, complex diagrams and graphics that are difficult to describe verbally can be easily described through the Braille system.

Learning the Braille system will enable a blind child to move on to working on a computer with a Braille display and a Braille printer. Braille is read by touch, using the index finger of one or both hands [1].

The purpose for which we offer you this manual for learning the Braille system at home is to teach you how to communicate with your blind friends and blind members of your family. You can write a letter, leave a note or a phone number. And what is also very important - you will be able to read a letter, note or phone number left for you, you will be able to freely communicate with friends and relatives without intermediaries. This manual can be successfully used by school teachers and rehabilitation specialists. It takes some effort to learn Braille and write accurately and accurately. For example, an incorrect dot can change the phone number. But knowing the Braille system is worth the effort. Set yourself the goal of achieving the highest possible results - and try to achieve success.

Main part.

To create university textbooks in Braille, the following steps are required:

Choose by Alphabet: The Braille alphabet is based on a set of 6 dots that represent both letters and numbers. For each letter of the alphabet there are sets of designated points. Communicate with a university Braille teacher or staff member. They can advise you on learning Braille and getting Braille textbooks. Get it in Braille from the university's website or other sources that provide textbook information. This is useful for downloading and reading textbooks. Find institutions and online resources that have resources and textbooks for learning Braille. This will help you learn to read Braille texts. Communicate with Braille teachers, university staff, or anyone else you want to learn from. They can help you learn and use Braille. Taking time to read Braille textbooks and learn Braille and it will be helpful if you make a study plan for the early Stages. This will help you to be effective in the learning process [7].

Data structure: Structure information about the location of each letter and the set of fixed points. For example, the letter "a" can be placed in the upper-right set, and "b" in the upper-middle set. Information can be gathered by contacting university support centers or teachers. Several public and private organizations support the study of Braille and provide Braille texts. You can contact them to use their instructions. There are art guides for learning Braille and getting Braille texts. For example, organizations such as The Braille Authority of North America provide information on how to obtain Braille texts. There are several online

resources for learning Braille and obtaining Braille texts. These resources will help you get Braille texts and use them to learn Braille. Some communities or institutions assist in learning Braille and obtaining Braille texts. Seeking their support and contacting them can help you. The following methods can be used to transfer textbooks and educational materials to Latino Braille:

Exercise symbols and devices: Using exercise symbols and devices for programming is good advice for many aspects of reading and writing. These symbols and devices help to create Braille symbols and sets of dots. The practice symbols and devices method can be advantageous for converting textbooks and educational materials to Latino Braille.

Easy to learn: Learning Latino Braille practice signs is easy and fast. This makes it easier for students to understand textbooks and manuals.

Smoothness and confidence: In the fun characters and devices method, the letters and words are represented in each character, so the textbooks can be read in a concise and accurate way. This makes it easier for students to understand the text and makes them feel comfortable. Ease of use for experienced teachers: Latino Braille practice signs and devices for teachers are reliable and easy to use. They can support students in their understanding and application of textbooks [3].

Adaptation to a variety of teaching materials: Latino Braille's practice signs and devices method allows for the transfer of textbooks and teaching materials in a variety of types and formats. It is widely used to translate texts, textbooks, articles, stories and other educational materials into Latino Braille.

Designed for Multilingual Materials: This method is designed for converting textbooks and educational materials in different languages to Latino Braille. This allows students to work with multilingual texts and enables them to read and learn multilingually.

The advantages of the interactive signs and devices method make it good and effective for translating textbooks and educational materials into Latino Braille. This allows students to feel comfortable and understand the textbooks, and also ensures that teachers can learn and understand different types of textbooks and materials.

Computer programs: Computer programs are good tools for automating textual data. These programs make it easy to convert text to Braille for reading and writing.

The role of computer software and technology in translating textbooks and educational materials into Latino Braille is very important. It is important to understand their position for the following reasons:

Speed and efficiency of training: Computer programs and technologies help to automate and speed up the method of training symbols and devices. These programs allow you to automatically convert textbooks and educational materials to Latino Braille, and also allow you to prepare a large number of texts in a short time.

Accurate and Accurate Copying: Computer software helps in accurate and accurate copying of textbooks and study materials. They allow detection and automatic correction of incorrect or fine-marked areas, as well as reducing errors and helping to make copies quickly and efficiently.

Use for Multilingual Textbooks: Computer software also helps in converting multilingual textbooks and educational materials into Latino Braille. They provide the ability to work with texts in different languages and also help in the automatic preparation of multilingual textbooks.

Authoritative Algorithms and Comprehensive Programs: Authoritative computer programs provide the necessary algorithms and comprehensive programs to implement the method of exercise symbols and devices. They help in the automatic acquisition and preparation of textbooks and study materials.

Software interface for corrections and correction process: Computer programs provide easy access and correction of exercise symbols and device method for learners, teachers and technicians. They provide future control of destinations with customizable interfaces. Also, computer programs and technologies are useful for experienced teachers and technicians, and are of great importance in strengthening and disseminating the method of training signs and devices [5].

3D Printers: 3D printers are one of the innovative ways to transfer Braille. They are ideal devices for creating Braille dot sets.

3D printers are important for translating textbooks and educational materials into Latino Braille for the following reasons:

Products for individual use: 3D-printers allow each user to make products according to personal requirements and needs. This enables the development of customized textbooks and learning materials for each student, as well as providing them with tailored advice and support.

Structure and design possibilities: It is very easy to design and edit textbooks and educational materials with 3D printers. This allows learning materials to be tailored to the most suitable requirements and also allows them to be tailored for individual learners according to personal requirements.

Development in a short time: With 3D printers, the development of textbooks and educational materials can be done in a short time. This allows for quick reaction to requests for new textbooks or materials, as well as speed and efficient management of new materials.

Multiple functions and methods: 3D printers work with a variety of materials and learning tools. They can work on a variety of materials, such as plastics, metals, and synthetic materials. This provides an opportunity to use different methods and many materials in studying textbooks and teaching materials.

Innovative methods and technologies: 3D printers are used to learn innovative methods and technologies and create educational materials. It is new and interest-based for students, helping them think critically and solve problems.

Thus, 3D printers help to provide an innovative, efficient and individualized service for translating textbooks and educational materials into Latino Braille. They provide convenience and speed in the development and distribution of educational materials, and also enhance the environment for students to be new and interesting.

Conclusions. I present the guidelines and suggestions related to the transfer of textbooks and educational materials to the Braille alphabet with the following conclusions and recommendations:

Guidelines and manuals: Universities should demonstrate the creation of guidelines and manuals for converting textbooks and teaching materials into Braille. It provides instructions and guides on how students can learn and use Braille.

Easy to read: The use of computer software is of great importance in translating textbooks and educational materials into Braille. These programs help Braille learners to create and read texts and textbooks efficiently and comfortably.

Textbook Reinterpretation Information: When translating textbooks and educational materials into Braille, reinterpretation information is essential to improve student comprehension. Each paragraph should contain brief comments about the main content, theme and problems of the text.

Online Resources and Electronic Programs: Universities strive to provide Braille-translated textbooks and teaching materials through online electronic programs. It allows students to read for the Early Stages and also allows them to use interactive and multimedia to learn Braille.

User Education and Support: Universities strive to provide services to support students in learning and using Braille. This can be done by providing Braille teachers, techniques and Early Stage lessons and teaching materials.

Multilingual Materials: It is important to provide Braille textbooks and learning materials in a multilingual format. It supports multilingual readers and enables them to work with texts in different languages.

Thus, universities strive to provide a convenient and efficient service in the transfer of textbooks and teaching materials to Braille, as well as ensure that students feel comfortable and understand what they are reading. This is important for the development of inclusive education and the development of the potential of each student.

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