

ABSTRACT

Blind students are increasingly being integrated into mainstream education programmes, using braille to follow the content of learning materials. Braille is a system of raised braille characters designed for reading and writing for blind people and others who cannot use blackletter effectively.

Dealing with specific content may result in problems with reading braille notes because not all content is written in such a way that a blind student can read it with a braille display. The braille display is an electronic device that works in conjunction with the computer to which it is connected.

Certain science topics that cannot be written using linear mathematical notation usually result in it crashing. Such subjects are chemistry and biology.

The research paper presents the process of how a blind person can follow the content of science subjects with the help of a linear notation of the structure of compounds, which we have developed. In mathematics and physics, blind people use linear mathematical notation (LMZ) to write formulas, which, unfortunately, is not useful for all notations in chemistry and biology. The process of determining the notation of the structure of compounds for the blind was performed in the following stages: firstly, a draft notation was written, which was reviewed by a chemistry teacher, then the record was read by a blind person in braille. Based on the reading and the teacher's explanation, the blind person suggested possible corrections. Further alterations were made for as long as the notation was legible and clear to the blind person and at the same time scientifically correct. The examination took place at two levels, in elementary and secondary school. It was performed using several cases from the same field and at the end the confirmed notation of the linear notation of the structure of compounds in a certain field was established. Unfortunately, despite our best efforts, the notation could not be examined at the further education or university level, as we were not able to discover a blind student in the natural science studies.
