

Teaching English to Visually Impaired Learners

Session 2. Tools and Resources

Reading and Writing Systems

What reading and writing system will the students use in my class?

Both print and braille reading are considered reading and writing systems, while audio is a complementary tool to them.

Tactile reading activates the same processing areas in the brain as visual reading. However, listening activates different processes.

Sight and touch help to process information more deeply, to improve language accuracy and to better retention. Both types of reading are processed on the left side of the brain.

Audio, processed in both hemispheres, is very interesting for catching moods, tones of voice, accents, etc.

Each of our students will use a reading and writing system; either print, Braille or they may use both simultaneously. And for each system we can add audio as a complementary and very useful teaching resource.

Print

Print is the traditional method of reading and writing, the one used by most of us, whether in handwritten or printed form. Thus, reading books, notes or computer texts is classed as reading in print, in the same way as writing in print is writing by hand or with a keyboard. And this is the reading and writing system that most students with severe visual impairment will use.

However, to access this code and process the information, some of them will need some adaptations.

When using paper resources, students with contrast and visual acuity problems will need, in addition to their glasses, a lectern to bring the text closer to their face, additional light provided by a flexible gooseneck lamp, contrasting material and, sometimes, text enlargement.

On the other hand, students with visual field problems will need the material to be more focused, with fewer visual elements around, but they will not require any enlargement.

When working with technology, it is easier to adapt the computer conditions to suit each student's individual needs through the system's accessibility tools or screen magnifiers. Further information about these tools is included in the course documentation.

Braille

Braille is a reading and writing code that faithfully represents each character of a language in its corresponding tactile sign. It is not, therefore, a different language, but a way of representing the same language that is read in print to be processed through touch.

It is based on the combination of 6 raised dots, on a space or cell, also called a "braille cell ", which has standard measurements, captured through our fingertips.

The three dots in the left-hand column are assigned the numbers 1, 2 and 3, and those on the right are assigned the numbers 4, 5 and 6. By combining these 6 dots we get 64 different groupings, including the blank cell, which is used to separate words.

To represent other signs for different disciplines, two or more cells are used; to represent capital letters, a specific sign is placed in front of the letter to indicate it is a capital and a similar system is used for numbers.

In English, some words, suffixes and prefixes are represented by a specific symbol. This is known as contracted Braille, stenography or Braille grade 2.

In technology, 8-dot Braille is used, in which dots 7 and 8 represent capital letters, numbers, etc. without the need for an extra cell.

Deafblind students will need to combine learning Braille with sign language, finger spelling and other adapted three-dimensional materials.

Among visually impaired students, those who are totally or partially blind, or those who have remaining vision that does not allow them to visually access written information, will use Braille.

Braille is used with the Perkins machine for handwriting, while the braille display is used with computer and mobile devices. Further information about these tools is included in the course documentation.

Below you can see an explanatory video about Braille and an image representing all the letters of Braille alphabet.

[What is the Braille system?](#)

[How to learn Braille as a sighted person](#)

[Games to learn Braille as a sighted person](#)

BRAILLE ALPHABET

Alphabet

A B C D E F G H

I J K L M N O P

Q R S T U V W X

Y Z Capital Follows Number Follows And For Of The With

Numbers

0 1 2 3 4 5 6 7 8 9

Punctuation

· , : ; ' ? ! () " "

Signs

+ - * @ < > / = # _

Sounds

ch gh sh th wh ed er ou ow

Audio

Although it cannot be considered a reading and writing system, it is important to use audio in learning, especially when studying a foreign language. The intonation, the links between words, the pronunciation in oral language can only be captured through audio.

It will therefore be an interesting resource, both for students who read in print and those who read in Braille.