



BARI I 41: BASIC BRAILLE LITERACY AND NUMERACY

Unit I: Introduction to Braille and Braille equipment

By a Team of UR-CE Lecturers

Unit I: Introduction to Braille and Braille equipment

Unit I learning outcomes

By the end of this unit, you should be able to:

1. Explain the development of Braille and its current situation in Rwanda.
2. Describe various Braille equipment, their maintenance and use

Unit I: Introduction to Braille and Braille equipment

Unit I indicative content

1. Development of Braille
2. The use of braille in Rwanda
3. Braille equipment

Topic 1.1: Development of Braille

Activity 1: 10 minutes

Briefly discuss how people with visual difficulties read and write

Braille

A system of embossed dots which are formulated using combinations of six dots

One group of the six dots as shown below is called Braille cell.

The Braille Cell

1 ● ● 4

2 ● ● 5

3 ● ● 6

Topic 1.1: Development of Braille

Activity 1: 10 minutes

Briefly discuss how people with visual difficulties read and write

Background of Braille

- **Valentine Haûy** (1745-1822) founded the first school for the blind in Paris in 1784. Haûy concentrated on using regular print in embossed form
- **Charles Barbier** (1767- 1841) was an army officer in the French army and also an engineer. He needed to send messages without being discovered at night and this could only be done, and it is only this basis that he came up with “tangible dots”. His system was used by soldiers to communicate at night in the battlefield
- **Louis Braille** (1809- 1852) was French man and became blind when he was young. He conceived the idea of using the upper half of the Barbier cell and designed an alphabet with the six dots cell that had two rows of three dots. The new code now called Braille was accepted in 1854 two years after Louis Braille’s death

Topic 1.2: The use of Braille in Rwanda

 Activity 2: 10 minutes

Discuss in pairs the reason why the learners with visual difficulties didn't attend schools before introduction of special school in Rwanda?

The use of Braille in Rwanda

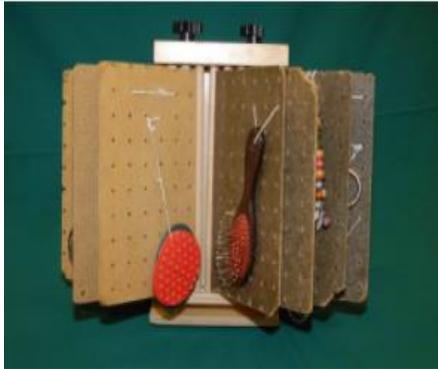
- Braille was introduced in Rwanda in 1978 at HVP Gatagara: an education center established for children with disabilities
- Currently, there are schools established to offer education to learners with visual difficulties like GS HVP Rwamagana, Kibeho school for blind, Musanze blessing school, GS Gahini Inclusive school, and University of Rwanda
- Some schools use British English Braille and others use French Braille

Topic 1.3: Braille equipment

Activity 3: 10 minutes

In pairs, discuss on the various equipment used by people with visual impairment in reading and writing

I. Pegboard books, Nail pegboard, and Wooden pegboard



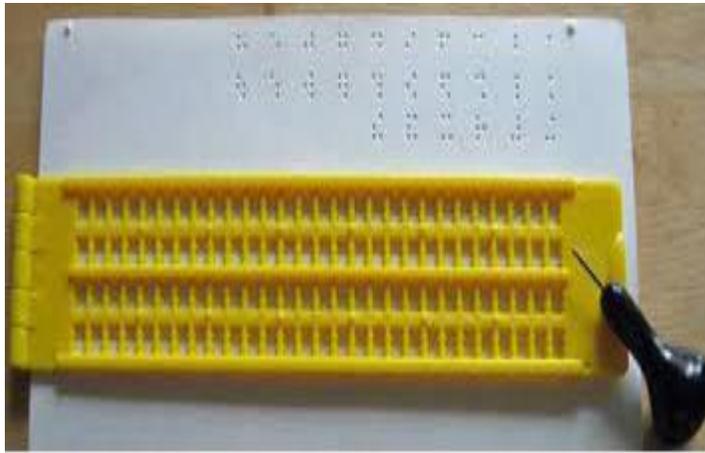
Top figure : Peg board books

- Provide a way for young children who are blind or visually impaired to begin to explore books.
- These objects become the first "symbols" for the child and are an important step in developing language and literacy skills

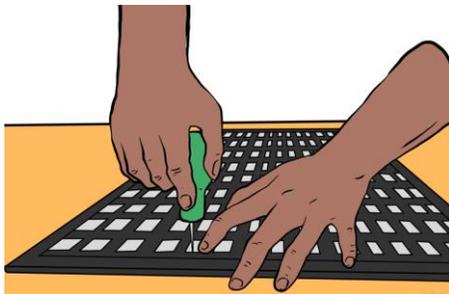


Bottom figure: *Nail pegboard and wooden pegboard*

2. Slate and stylus



- A rectangular frame that has impressions of Braille cells on it. Braille paper is inserted and held tightly by the frame.
- The stylus is used to prick dots on a special paper known as Braille paper.
- The bottom figure shows the use of slate and stylus

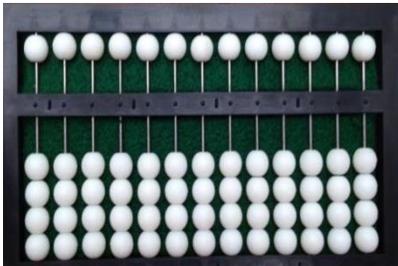


3. Perkins Brailier



- Perkins Brailier is the most commonly used Braille writing machine in schools in Rwanda
- The embossing head produces firm dots that are easy to read

Mathematical tools



Cranmer abacus (Top figure)

It is designed specifically for individuals who are blind

Cuberithm Arithmetic Board (Bottom figure)

- It is a Braille math teaching aid for visually impaired students
- The weighted plastic cubes are embossed with braille signs
- Arithmetical calculations are made by placing the cubes into the appropriate spaces on the partitioned board, with the desired braille character uppermost



Reading resources



Reading resources are materials used by people who are blind when they are reading information written in Braille: Braille books, Braille cards, and Braille games



Braille technological devices

Braille Technological devices are assistive technologies which allow **blind** or visually impaired people to do common tasks:

- Writing,
- Browsing the Internet,
- Typing in Braille and printing in text,
- Engaging in chat,
- Downloading files, music,
- Using electronic mail,
- Burning music,
- Reading documents
- etc

Jot a dot



Jot a dot is an electronic mini-Braille writing machine also referred to as “Pocket Braille”

This is a portable brailleing device and the most recent form of note taking machine for persons who are blind; it uses light paper as opposed to the other Braille which must use heavy Braille Paper

Embosser or braille printers



The embosser is the most recent development in Braille writing and mass production of Brailled materials

What did I learn in this unit

Unit Summary

This unit discussed the meaning of Braille, background of Braille in Rwanda and the different Braille equipment. The use of the various Braille equipment is also mentioned to facilitate better understanding of the purpose of the Braille equipment.

What did I learn in this unit

! Reflection question

Describe common available equipment used by people with visual impairment to read and write



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END OF UNIT I

THANK YOU