

Overview

Would you like to be able to exchange messages with a family member, client, or student who is blind? Perhaps you would like to leave a note about preparing a meal, changing an appointment, or completing an assignment. Braille is the standard form of reading and writing that people who are blind use today. Mastery and use of braille represent competence, independence, and equality. As such, they play a central role in the development of self-identity. As a sighted person, you can learn to read braille visually. In fact, this course will give you the tools to communicate in writing with your family member, client, or student who is blind. Its goal is to enable you to read and write grade 1 braille.

The course is divided into eight lessons. The first lesson briefly summarizes the history of braille and describes grades 1, 2, and 3 braille. Then it lists the advantages of learning braille and describes the devices used to produce it. Lesson 2 explains how to read the letters of the alphabet in braille. As you complete Lesson 2, you'll receive a video that prepares you for the next lessons. Lesson 3 explains how to use the slate and stylus; Lesson 4, the braillewriter. Lessons 5 through 8 explain how to write braille letters, numbers, composition signs, and punctuation. Additional reading exercises are included as well. The appendix explains the laws pertaining to the use of braille in schools and public places. The Quick Reference Guide illustrates all the braille symbols introduced in this course and their print equivalents. The

photo depicts a Perkins braille.

Since this is an introductory course, it will not make you fully proficient in braille. To read and write braille proficiently, additional study and practice will be necessary. Suggestions for further studies are described on the supplementary page titled “Next Steps,” which is included with your course materials.

You do not need any skills or prerequisites to begin this course. Nevertheless, you do need the braille writing tools and materials that are included with this course. These include a slate and stylus, braille eraser, index cards, and supply of braille paper.

The practice activities in each lesson are for your personal development only. Therefore, do not send your answers to your Hadley instructor. You can always contact your instructor, however, to either clarify these activities or to discuss your answers. To do so, refer to the Contact Information Card that is included with your course materials.

To complete this course you are required to submit eight assignments, one at the end of each lesson. These assignments enable your instructor to measure your ability to apply the concepts presented in the lessons. Submit each assignment after completing its lesson, and wait for your instructor’s reply before sending in the next one. In this way, you can apply any corrections or comments from your instructor to subsequent lessons and assignments. If you prefer to mail your assignments, mailing labels are

provided for your convenience. Otherwise, refer to the Contact Information Card that is included with your course materials for a fax number or e-mail address.

Lesson 4

Using the Braillewriter

If you or a family member have a braillewriter, you will probably want to use this device for writing notes or messages. Even if you do not currently have a braillewriter, it is advantageous to be familiar with what one looks like and how it works. Lesson 1 briefly described the history of braille, explained the braille system of dots, and listed the advantages of braille literacy. It also described the devices used to produce braille. Lesson 2 enabled you to read the braille alphabet. Lesson 3 explained how to use the slate and stylus. This lesson explains the mechanics of the manual braillewriter, or brailler. Familiarizing yourself with the information in this lesson will enable you to use a braillewriter.

Objectives

After completing this lesson, you will be able to

- a. identify the mechanics of the braillewriter
- b. describe how to emboss on the manual braillewriter

The Mechanics of the Manual Braillewriter

Look at the picture of the braillewriter that was included with your course materials, or look carefully at your braillewriter if you have one. A description of each part follows.

Embossing head lever: This is a spoon- or scoop-shaped lever on the front of the braillewriter, above the keys, that moves the embossing head horizontally across

the writing surface. Three fingers of the right hand fit into it comfortably. By exerting slight pressure downward and sideways, you can move the lever in either direction to place your braille dots at any desired point on a line. As you move the lever, you can see the embossing head move with it. People who are blind use the raised dots near the embossing head to determine the desired place on the line. When inserting paper, ensure that the embossing head is completely at the left margin.

Embossing keys: These six keys, arranged in two groups of three on the front of the braille, can be depressed in any combination to produce raised dots. Each depression of one or more keys produces a braille cell on the paper.

Space bar: When depressed, this wide bar in between the two groups of embossing keys moves the embossing head one space to the right without making any raised dots.

Backspace key: When depressed, this round key to the right of the embossing keys moves the embossing head one space to the left.

Line advance key: This round key to the left of the embossing keys advances the paper when depressed.

Paper release levers: These are silver knobs located on either side of the top of the braille. They move together, so you may use one hand or both. If you pull them toward you, they open the braillewriter for inserting the paper. When you push them away from you, they firmly close and grip the paper. When storing your braille, leave the paper release levers open.

Paper support bar: The paper rests against this bar that is located in the area behind the embossing head. Paper should be inserted as far left as possible on the paper support bar.

Paper feed knobs: These cylindrical knobs on each side of the braille are used to roll the paper onto the feed roller. When the knobs are turned away from you as far as they will go, you can insert paper. Rolling the knobs toward you advances the paper. A paper stop will prevent you from rolling the paper too far.

Margin setters: These small buttons are located on the back of the braille. By lifting one of these buttons, you can slide it left and right. While you are brailleing, a bell will sound when you are a few cells from the right margin to let you know you are near the end of the line.

Inserting and Removing the Paper

Follow these steps to insert and remove braille paper:

1. Slide the embossing head lever as far as possible to the left.
2. Turn the paper feed knobs as far as possible away from you. This step is critical. If the knobs are not turned completely, the paper will not fit securely and will roll out the front of the braille.
3. Pull the paper release levers toward you.
4. Hold the paper with both hands with the bottom edge parallel to the paper support bar. Slide the bottom edge of the paper under the embossing head and place it against the paper support bar, as far left as possible.
5. Continue to hold the paper in place with one hand as

you push the paper release levers away from you to lock the paper in place.

6. Turn the paper feed knobs toward you until the paper stops.
7. Press the line advance key once to calibrate the line spacing.
8. Adjust the margins to 28 cells as follows: Squeeze the small knobs together and slide them along the slot on the back of the braille.
9. Pull the paper release levers toward you to release the paper for removal.

Practice Exercise

If you have a braillewriter, practice inserting and removing the paper correctly. If you do not have a braillewriter, order the following steps correctly.

- ___ Press the line advance key once to calibrate the line spacing.
- ___ Adjust the margins, if necessary, by squeezing together and sliding the knobs on the back of the braille.
- ___ Pull the paper release levers toward you.
- ___ Continue to hold the paper in place with one hand as you push the paper release levers away from you to lock the paper in place.
- ___ Pull the paper release levers toward you to release the paper for removal.
- ___ Hold the paper with both hands with the bottom edge parallel to the paper support bar. Slide the bottom edge of the paper under the embossing head and place it against the paper support bar, as far left as

possible.

- ____ Slide the embossing head lever as far as possible to the left.
- ____ Turn the paper feed knobs as far as possible away from you.
- ____ Turn the paper feed knobs toward you until the paper stops.

When you have finished, compare your answer with the following:

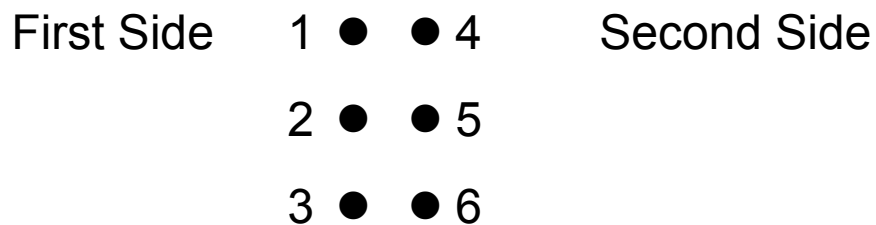
- 7 Press the line advance key once to calibrate the line spacing.
- 8 Adjust the margins, if necessary, by squeezing together and sliding the knobs on the back of the braille.
- 3 Pull the paper release levers toward you.
- 5 Continue to hold the paper in place with one hand as you push the paper-release levers away from you to lock the paper in place.
- 9 Pull the paper release levers toward you to release the paper for removal.
- 4 Hold the paper with both hands with the bottom edge parallel to the paper support bar. Slide the bottom edge of the paper under the embossing head and place it against the paper support bar, as far left as possible.
- 1 Slide the embossing head lever as far as possible to the left.
- 2 Turn the paper feed knobs as far as possible away from you.

- 6 Turn the paper feed knobs toward you until the paper stops.

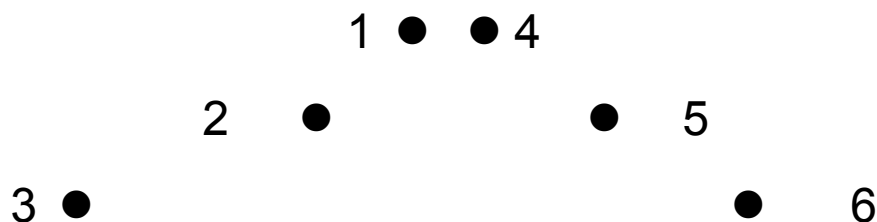
Embossing on the Braillewriter

As mentioned in Lesson 1, the manual braillewriter resembles a typewriter, but with fewer keys. Six keys correspond to the six braille dots. You can depress any combination of keys together. The following diagrams illustrate how the key configuration derives from the braille cell.

The following diagram clearly illustrates numbering the braille dots in a cell:



Now imagine the braille cell opening between dots 3 and 6 and swinging outward.



Continue to imagine the dots spreading out until they form a horizontal line, like this:

3 ● 2 ● 1 ● ● 4 ● 5 ● 6

Once you insert a space bar between dots 1 and 4, you have the layout of the braille keyboard.

Each key has a designated finger, as follows:

- dot 3 left ring finger
- dot 2 left middle finger
- dot 1 left pointer
- dot 4 right pointer
- dot 5 right middle finger
- dot 6 right ring finger

The space bar is pressed with either or both thumbs. What if you make a mistake? Use the same eraser that you received with your slate and stylus.

Practice Exercise

Color in the simulated keys below to show which keys you would depress to produce an *a*, *b*, and *c*.

a: (dot 1) □ □ □ □ □ □ □

b: (dots 1 and 2) □ □ □ □ □ □ □

c: (dots 1 and 4) □ □ □ □ □ □ □

When you have finished, compare your results with the following diagrams:

a: Braille diagram for lowercase letter 'a': a 3x2 grid of dots. The first row has dots 1, 2, and 3. The second row has dots 4 and 5. The third row has dots 6, 7, and 8.

b: Braille diagram for lowercase letter 'b': a 3x2 grid of dots. The first row has dots 1, 2, and 3. The second row has dots 4 and 5. The third row has dots 6, 7, and 8.

c: Braille diagram for lowercase letter 'c': a 3x2 grid of dots. The first row has dots 1, 2, and 3. The second row has dots 4 and 5. The third row has dots 6, 7, and 8.

Summary

This lesson described the mechanics of the manual braillewriter. The lesson then described the layout of the keys. If you have a braillewriter, why not experiment with it? Try making letters, referring to the Quick Reference Guide. Then ask your family member, client, or student to read what you've written.

Assignment 4

Complete this assignment on a blank sheet of paper. Use a separate sheet of paper if you are using a braillewriter. Begin by giving your full name, address, and phone number. Also indicate the name of this course, Assignment 4, your instructor's name, and the date. Then provide your answers. Be sure to indicate the question numbers along with your answers. Instructions for mailing your assignment are included in the Overview to the

course.

Are the following statements true or false? If false, reword the sentence to make it true.

1. The embossing head lever is part of the braillewriter.
2. The manual braillewriter has a backspace key.
3. The thumbs depress keys for dots 1 and 4.
4. A braille eraser is the same for both the slate and stylus and the manual braillewriter.

Respond to the following questions:

5. What part of the braillewriter moves the paper until it stops and is ready for brailing?
6. What part of the braillewriter sets the margins?
7. Which fingers do you use to braille the letter *t*, which is formed with dots 2, 3, 4, and 5?

Provide short answers (one or two sentences) to the following:

8. What are the steps involved in starting a new line of braille?
9. What are the steps involved in inserting paper?

Competency task:

10. If you have a braillewriter, make a line of *a*'s, *b*'s, *c*'s, and *l*'s. Use the Quick Reference Guide to determine which dots are needed. If you do not have a braillewriter, indicate which fingers are used to produce each of these letters.

Once you have completed this assignment, send it to your instructor. Then proceed to Lesson 5: Letters and Words.