

Taptilo User's Guide

Taptilo 4.0 English Version

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OHFA TECH, INC.

#804, Seongdongansimsangga, 20, Seongsuil-ro 12-gil, Seongdong-gu, Seoul, Republic of Korea (04793)

Phone: +82-2-469-4565, +82-10-2958-4565

Fax: 02-465-4566

email: sales@taptilo.com

Website: www.taptilo.com

Before using the product

Precautions Before Use

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User's Guide may contain technical, editorial errors, and omissions.

The color and details of the images used in the manual may differ from the actual product depending on the printing condition. The product and user's guide may be changed without notice for improvement.

Safety Precautions

- Do not use or store below 0°C or above 50°C. It may cause a malfunction.
- If you place your hand on or put pressure to the braille cell while it is operating, the braille may not be shown correctly. Continued pressure may cause malfunction of the product.
- Do not place the product or charging adapter near heat sources such as stoves. It may cause an explosion or transformation of the device.
- Do not place the device in a humid place. It may cause an electric shock, malfunction, or damage.

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1. Overview of Taptilo

Taptilo is a smart braille learning device that makes learning and teaching braille fun and easy.

With the braille display at the bottom of the device and the 9 braille blocks on the top, braille starters can learn both writing and reading at the same time.

Learning braille with Taptilo has four advantages.

- 1. With braille blocks and voice guidance, braille starters learn braille in a fun way, from dots to music braille.
- 2. Anyone can learn braille by themselves with the pre-made Taptilo curriculum.
- 3. By connecting the Taptilo app (named Taptilo 4.0) and the device via Bluetooth, anyone who do not know braille can teach braille easily.
- 4. Remote braille lessons are available in Taptilo 4.0. In any situation, teachers can teach braille by controlling the Taptilo of student through the Taptilo Classroom app even if they are far apart from students. Teachers can also manage learning

progress of the students, such as giving assignments through the Taptilo mobile app.

With Taptilo, anyone can easily learn braille with fun!

1.1 Unpacking

1) Taptilo Device (with 9 Braille Blocks)

This is a smart braille learning device Taptilo. 9 braille blocks located at the top of the device are detachable.

2) Taptilo Case

The case is designed to carry the Taptilo safely. It does not get wet easily even when it touches water. Zipper on the case makes it easy to open and close the case. There is a rubber plate at the bottom of the case, preventing it from slipping.

3) 1 Extra Braille Block

One extra braille block is included so you can learn braille anytime, anywhere.

If the user loses the braille block attached to the Taptilo, an additional braille block can be used instead.

4) Charger

Be sure to use the provided charger to charge the Taptilo. If you use a different charger, the device may not be charged or work properly. This may lead to malfunction.

5) Shoulder Strap

A shoulder strap can be attached to a bag with a Taptilo. It makes carrying Taptilo convenient. Adjusting the length of the shoulder strap is also available.

6) Mini Pouch

You can carry the charger, the shoulder strap, and other accessories with the pouch.

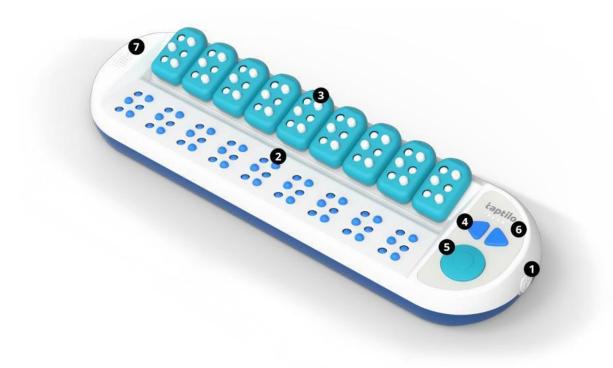
7) Quick Start Guide

Quick Start Guide introduces the basics of using Taptilo. The warranty card also included in Quick Guide. It is required when receiving customer service.

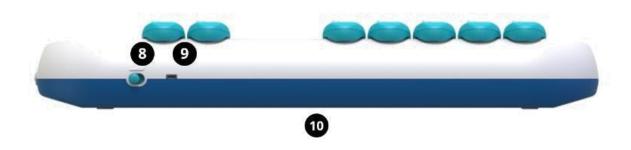
1.2 Taptilo Appearance and Functions

Taptilo devices can be divided into two parts: 9 braille blocks for writing and braille display for reading.

There are 9 braille blocks at the top and a braille display below from the point of the user. Please refer to the description below to find more detail on each part of the device.



<Image: Taptilo from top>



< Image: Rear of Taptilo>

1) Power Button

The power button is on the right side of the Taptilo. Push the power button once to turn on the device. When the device is turned on, the button will be put inside. To turn of the device, press the power again.

2) Braille Display

There is a braille display at the bottom of Taptilo. The braille cells are five times biggerr than the actual size of braille, allowing the braille starters to get used to the braille faster.

The braille display has 9 braille cells. Each braille cell has six dots. The user can learn reading braille through the braille display.

3) Braille Blocks

9 braille blocks on Taptilo are five bigger than the actual size of the braille. Braille Blocks are rectangular shaped with rounded corners. They are magnetic so it could be attached and detached from the device easily.

It is important to distinguish the front and back of a braille block. The front of the Braille Block must face the user so that the device can properly recognize the Braille Block. The user can easily distinguish the front and back sides by touching it.

When the user feels the flat semicircle of the Braille Block, it means that he or she touches the front side. If a user touches the top of the Braille Block, the user can feel the curved edge of the braille block.

Taptilo braille blocks allow the user to learn both Perkins and Slate & Stylus methods. For detailed instructions on how to use braille blocks, refer to 3.3 How to Use the Braille Blocks.

4) Left and Right Arrow Buttons

The arrow buttons are on the right side of the device, next to the braille blocks. The arrow buttons are used to move to the next or previous option (content). For more information on button navigation, refer to 3.2 Button Navigation.

5) Circle Button

The circle button is on the right side of the device, below the arrow buttons. The circle button is used to select an option (content) or check the answer. For more information on button navigation, refer to 3.2 Button Navigation.

6) LED Battery Indicator

The LED battery indicator is on the arrow buttons. Four LED lights show the remaining battery and charging status when the device is connected with the charger. For more information, refer to <u>1.3 Charging the Battery</u>.

Users also can check the battery status through the audio guide. Press and hold the right arrow button and the circle button for two seconds at the same time to hear the battery status through the voice.

7) Speaker & Earphone Jack

- Speaker

The speaker is on the top left of the Taptilo. Taptilo's audio guide is played through it.

- Headphone Jack

If the user puts their hand on the speaker and moves their hand to the left, there is an earphone jack on the left side of the device.

8) Volume Controller

The volume controller is a toggle switch located on the right side of the upper edge. The user can adjust volume in 3 levers. When the user pushes to the left (assuming the braille display is facing the user), the volume will increase.

9) Charging Port (micro USB)

The charging port is located on the upper edge to the right of the volume controller. Plug the charger to charge.

10) Serial Number Label

The serial number is written in mute letter also the braille. It is located on the bottom of the device. The Taptilo serial number is required when connecting the Taptilo app to the device and requesting A/S.

1.3 Charging the Battery

1.3.1 How to Charge the Battery

Connect thecharger to the charging port on the top of the device, next to the volume controller. It is recommended to charge fully before using the device. Check the image below to find out the location of the charging port below.

1.3.2 Charging Time

Five hours of charging will provide up to 15 hours of usage. It is recommended to charge at least an hour when the battery is discharged. When the device is turned off due to a low battery level, it will restart

automatically when the user starts charging the device.

1.3.3 Check the Charging Status

Users can check the charging status through the 4 LED lights above the arrow buttons. All 4 LED lights will blink when the device is charging. When the device is fully charged, all 4 LED lights will light up.

1.3.4 Check the Remaining Battery

Users can also check the battery level with the LED lights even when the device is in use. All 4 LED lights light up means the battery is full. When the two LED lights blink, it means the battery is about half left. If only one LED is blinking, the device needs to be charged.

The user can also check the charging status of device through the audio guide. When the device is turned on, press and hold the right arrow button and the circle button for two seconds at the same time to hear audio guidance

* Caution

If the user does not use the charger provided by Taptilo, Taptilo may not be charge charging may not be possible or a fire may occur. Be sure to use the charger provided.

If the user leaves the power on with Taptilo and does not use it for over 10 minutes, there will be a "ding ding ding" sound. To prevent discharging, turn off the power or charge when the sound rings.

1.4 Specifications

1.Product: Taptilo 4.0

2.Model: TEDU-W500USA

3.Color: Blue

4.Language: English (USA) (*The language may be varied)

5. Power

- Main voltage: +5.0V

- Battery: Li-ion 2,600mAh (3.7V)
- Adaptor: Input 100V 240V (0.5A) / Output
 5.0V (2.0A)
- Charging time: 5 hours
- Running time: 15 hours

6. Wireless

- Bluetooth 4.2

7. Temperature

- In operation: 15°C 35°C
- On hold: -10°C 60°C

8. Size

- Main body: 437 * 137 * 55.c (mm)
- Block: 33.6 * 56.2 * 16.8 (mm)

9.Weight

- Main body: 3lb / 1.4kg
- Block: 0.4lb / 20g

2. Getting Started

2.1 Glossary

These are terminologies used in Taptilo.

2.1.1 Lessons

The curriculum of Taptilo comprise "Lessons". Lessons are divided into Basic Lessons, Custom Lessons, and Additional Lessons. The details of each are shown below.

- 1) Basic Lessons: The Basic Lessons are provided by Taptilo. It has Dot, Number, Alphabet, Contractions, Word Level 1, Word Level 2, Word Level 3, Symbol and Braille Master (16 weeks curriculum for braille).
- 2) Custom Lessons: The user create their own lessons based on the interest and learning level. Using the Taptilo app (Taptilo 4.0 and Taptilo Classroom) anyone can make the word lists and add them to the device via Bluetooth. After that, the user can learn custom lesson on Taptilo without connecting to the app. Users can add only one

custom word list to one device which contains up to 350 words.

3) Additional Lessons: There are two additional lessons, 'Game' and 'Music'. For a detailed explanation of each lesson, refer to the <u>4.4.2 Game</u> and <u>4.4.3 Music.</u>

2.1.2 List

A lesson is divided into several lists. For example, the lesson "Alphabet" is composed of three lists, "The First Ten Letters", "The Second Ten Letters", "The Last Six Letters". List is only shown on the app, not the device.

2.1.3 Content

In Taptilo, dots, numbers, and words included in lists are all referred to as "content". "a", "apple", and "10" are the content of Taptilo.

2.1.4 Activities

Activities are braille learning methods of Taptilo. In Basic Lessons and Custom Lessons, users can select among three activities: "Read", "Read and Write", "Listen and Write". The Music has three activities: "Solfege", "Notes & Rests", "Compose". For a detailed description of each activity, refer to 2.3 Activities.

2.2 Starting Self-Study Mode

Taptilo provides two study modes, Self-Study and Teaching Mode.

2.2.1 Self-Study Mode

Self-Study Mode is a way to learn braille by yourself with a Taptilo device. Based on the curriculum provided by Taptilo, anyone can learn braille easily by listening to audio guide and instructions.

Turn on the Taptilo, press the circle button to get started.

2.2.2 Teaching Mode

"Teaching Mode" can be started by connecting the Taptilo apps and the device through Bluetooth. The Taptilo app contains the same activities and contents as the Taptilo device.

For more information about study together, refer to <u>5.</u> <u>Teaching Mode with Taptilo Classroom.</u>

2.3 Activities

Taptilo offers various learning activities in lessons. Activities provided by Taptilo are different from the lessons.

2.3.1 Basic Lessons and Custom Lessons

The Basic Lessons and Custom Lessons support three activities.

1) Read

In "Read", users read the braille displayed on the braille display

To start the activity Read:

- 1.Listen to the content and read the braille shown on the braille display.
- 2.To move on, press the circle button or right arrow button.
- 3.To go back to the previous content, press the left arrow button.
- 4.To listen to the spellings, press and hold the circle button for two seconds. If the content does not contain any spellings (e.g. numbers, alphabets, etc.), the contents will be repeated.
- 5.To hear the content again, press and hold the left arrow button.

2) Read and Write

In "Read and Write", users read the braille shown on the braille display and write the same patter using the braille blocks.

To proceed with the Read and Write activity:

- 1.Listen to the content and read the braille shown on the braille display.
- 2. Use the braille blocks to create the same patterns and place them in the correct order.
- 3. Press the circle button to check the answer. If the answer is correct, Taptilo will move to the next word.
- 4.To listen to the spellings that make up the content, press and hold the circle button for two seconds. If the content does not contain any spellings, the contents will be repeated.

3) Listen and Write

In 'Listen and Write', users listen to a content and write it down using the blocks.

To proceed with the 'Listen and Write' activity:

- 1. Listen to the content that Taptilo reads to the user. There will not be a pop-up on the braille display.
- 2.Use the braille blocks to create the content heard and place it in the right order.
- 3. Press the circle button to check the answer.
- 4. If the user gets three incorrect answers in a row, the answer will be shown on the braille display. Afterward, users can read and write the correct answer to move on.
- 5.To listen to the spellings that make up the content, press and hold the circle button. If the content does not contain any spellings, the content will be repeated.

2.3.2 Game

The game is reading the braille shown on the braille display and writing the missing letter. There are three topics.

To play the game:

1. When the game starts, Taptilo reads the content, and the word is displayed on the braille display with one missing letter. For words with sound

effects, the sound effects are also played. For example, if the question 'car' is asked, Taptilo will read the content 'car' and the user can hear the car sound effect. On the braille display, words except for one letter (a) are displayed as 'c (blank) r'.

- 2.Write the missing letter using the braille block. Place a braille block at the location of that letter. The user does not need to write the characters that are already shown. For example, if the question 'c (blank) r' is printed out, write 'a' in a braille block and place it in the second place. The rest of the letters (c, r) do not need to be written through braille blocks.
- 3.To hear the content repeatedly, press and hold the circle button.
- 4. To check the answer, press the circle button.
- 5. If the user gets three incorrect answers in a row, the answer will be shown on the braille display. Afterward, users can read and write the whole content. To move on to the next content, press the circle button. If the user gets the correct answer, it automatically moves to the next word.

2.3.3 Music

Taptilo has a "Music" lesson to learn music braille. Music consists of three activities: solfege, notes & rests, and compose.

Music offers three instruments (trumpet, bass, and piano). The default instrument is piano.

1) Solfege

In "Solfege" the user can learn "Do, Re, Mi, Fa, Sol, La, Si, Do" from the 4th octave to "Do" in the 5th octave.

To proceed Solfege:

- 1. When the user selects the learning the notes activity, notes appear from left to right on the braille display.
- 2. Read the braille shown on the braille display and write it along using the braille block.
- 3. To check if the user wrote correctly, press the circle button.

4. When learning notes in order is completed, notes will appear in random order. Please follow the same activities to learn the notes in random.

2) Notes & Rests

In "Notes & Rests", the user can learn various notes and rests in music braille.

To proceed "Notes & Rests":

- 1. A note or rest appears on the braille display, and the content is read out by audio guide.
- 2. Read the braille displayed on the braille display and write it down using the braille block.
- 3. To check if the user wrote correctly, press the circle button.

3) Compose

Users can make their own songs based on the musical braille learned through the two activities The four lines (1 line has 9 braille blocks) could be saved.

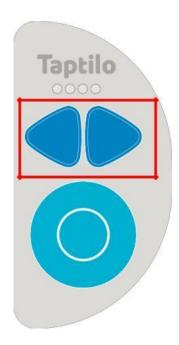
To compose the song:

- 1. Use the braille block to write the notes and place them on the top of the device.
- 2. After writing the note, press the circle button to save the line.
- 3. The user can move to the next line by pressing the right arrow button. Four lines could be created.
- 4. The user can move to the previous line by pressing the left arrow button. If there is not any musical braille written on the previous line, the music braille will play the braille shown on the current line.
- 5. To edit the line, use a braille blocks to write all notes and rests in the current line. Press the circle button to save. The line will be overwritten.
- 6. To listen to the entire song, press and hold the circle button for two seconds.
- 7. If the user write the music braille which does not exist, the rest of the music will be played.

2.4 Switching between Contracted and Uncontracted Braille

With Taptilo, the user can learn easily by switching between the contracted and uncontracted braille.

2.4.1 Switch on Device



<Image: The left and right arrow buttons on Taptilo>

To switch between contracted and uncontracted on the device:

1. Press and hold both arrow buttons at the same time for 2 seconds.

- 2. When switching from uncontracted braille to contracted braille, the voice prompt says "Switch to contracted braille". While switching from contracted to uncontracted, the voice says "Switch to uncontracted braille".
- 3. If the content displayed on the braille display is not changed immediately, the changed settings are applied when the user moves on to the next content.

2.4.2 Switch on the App

Users can also easily switch between the contracted and uncontracted braille in the Taptilo apps.

To change the braille on the app:

- 1. While the device is connected with the app, enter the content and see the word screen.
- 2.At the top of the word screen there is a menu to select learning activities. Below the activity menu, there is a tab to choose a contracted or uncontracted braille.
- 3. Select the mode by tapping the menu.

3. Self-Study Mode with Taptilo Device

3.1 Powering On/Off



< Image: Taptilo power button>

3.1.1 Powering On

- 1. Press the power button on the right side of the device. The button will be slightly pushed in.
- 2. The LED lights above both arrow buttons will light one by one, users will hear the braille display pop-up while the device is powered on.
- 3. When Taptilo is turned on, all braille cells on the braille display will appear, and audio guide will say "Press the circle button to start the Self-Study Mode". If you want to study alone, press the circle button. Otherwise, connect Taptilo to the app.

Refer to <u>4.1.2 Connecting Taptilo 4.0 to the Device</u> for more details.

3.1.2 Powering Off

Press the power button on the right side of the device until it is slightly pushed out.

When Taptilo is turned off, all cells of the braille display go down, and the audio guide will say "See

you later". The LED lights will be turned off from the right.

3.2 Button Navigation

On the top right side of the Taptilo, there are left and right arrow buttons and a circle button.

Users can learn braille by themselves by operating the Taptilo with three buttons. Each button can be operated with a short press and a long press (hold about 2 seconds). The buttons work same in the activities and lessons, except for the "Music".

3.2.1 How to Use Buttons (except for Music)

- 1) Right arrow (short press): Go to the next content
- 2)Left arrow (short press) Go to previous content
- 3)Circle (short press): Check the answer or Select the option (go to next content in reading activity)
- 4) Right arrow (long press): Go to the next activity
- 5)Left arrow (long press): Go to the previous activity

- 6)Circle button (long press): Listen to current content again
- 7)Both arrow buttons (long press): Change braille type for current content (Uncontracted ↔ Contracted)
- 8) Right arrow & Circle button (long press): Check battery status (audio)
- Left arrow & Circle button (long press): Enter or Exit Program Menu
 Both arrow & Circle button (long press): Enter or Exit Program Settings

Tip:

Press and hold the arrow button to move in the following order: Basic Lessons, Custom Lessons, Games, and Music. With activities, the order is reading, reading and writing, listening, and dictating. With music, the order is learning the notes, rests, and making a song.

3.2.2 How to Use Buttons in Music (Compose)

- 1) Right arrow (short press): Move to the next line
- 2)Left arrow (short press): Go to the previous line
- 3)Circle button (short press): Play the music saved in the current line
- 4) Right arrow (long press): Go to the reading activity of the first basic lessons
- 5)Left arrow (long press): Go to the rest of the music learning
- 6) Circle button (long press): Play all saved music
- 7)Both arrow buttons (long press): Changing instruments (trumpet, bass, and piano
- 8) Right arrow & Circle button (long press): Check battery status(audio)
- 9)Left arrow & Circle button (long press): Enter or Exit Program Menu
- 10)Both arrow buttons & Circle button (long press): Enteror Exit Program Settings

Tips:

If the user presses the circle button shortly while the audio guide is playing, it will be skipped.

The Program Menu makes it easy for the user to navigate to the lessons and activitie. Please refer to 3.4 Program Menu for more details.

In Program Settings, users can change various settings of Taptilo. For details, refer to <u>3.5 Program Settings</u>.

Changing between contracted and uncontracted braille does not work during music activity.

3.3 How to Use the Braille Blocks

The users can learn two braille writing styles: Common (Perkins Style) and Slate & Stylus.

For the detailed description of the braille block, please check 3) Braille Block in <u>1.2 Taptilo Appearance and Functions.</u>

3.3.1 Common (Perkins Style)

When using the Common writing style, users write in the same direction that users read (left to right). The fingers will be placed as same as using a Perkins Keyboard (index, middle, and ring finger of left hand on dots 1, 2, 3 and index, middle, and ring finger of the right hand on dots 4, 5, 6).

- 1)How to use braille blocks in Common writing style
- 1. Hold a Taptilo block with both hands, the front side facing the user.
- 2. Push all the dots so the front side is flat when it is touched.
- 3. Hold the braille block with both hands. Place thumbs on the back of the braille block. Put index, middle, ring fingers on each dot.
- 4. With each finger, push the dots upward to create braille patterns. For instance, to create 'a', push dot 1 with the left hand's index finger.
- 5. After making the letter, place the blocks from left to right with the front side of the block facing the user. The braille blocks that correspond to empty braille cells should have all dots pushed down.
- 6. Press the circle button to check the answer.



<Image: Holding the Taptilo block with both hands>

3.3.2 Slate & Stylus

It would be easier to understand Slate & Stylus style imaging slate and stylus to write braille. The stylus will be the users' finger. When using the Slate & Stylus writing style, users write in the opposite direction that users read (right to left) The dot positions are the same as in using a slate and a stylus pen to write braille.

1) How to use braille blocks in Slate & Stylus style.

- 1. Hold block as the front-side facing user. Make all braille dots pop up. This status indicates that the braille cell is blank.
- 2. Place all the 9 braille blocks on the device with the front-facing the user.
- 3.Use a finger as a dot pen to write braille by pressing down on the braille pin from right to left. For example, to write an alphabet "a", press the first block from the right.
- 4.All dots of the blocks that correspond to empty braille cells should be pushed up.
- 5. Press the circle button to check the answer.

Tip:

To check if you write correctly in Slate & Stylus style, flip the braille blocks over and check if they match the braille on the braille display. It would be helpful to imagine reading the paper under the Stylus.



<Image: A left hand holding a Taptilo block with all six dots pushed up>

3.4 Program Menu

Taptilo provides two ways to move on among lessons and activities. The first method is to press and hold the left and right arrow buttons as shown in 3.2 Button Navigation. Taptilo recommends using the method above to study in order.

Another way to change learning programs is useful when users would like to move on to other lessons or

activities directly. With the Program Menu, users can quickly select a lesson and activity and start learing easily.

- 1)How to use the program menu
- 1. Press and hold the left arrow button and the circle button at the same time for 2 seconds.
- 2. The audio guide will say "Program Menu", "It is a mode to move from the current activity to another.
- 3.Users can move to the lessons and activity by pressing the left and right buttons, and users can select by pressing the circle button. The lessons will be chosen first.
- 4. Use the arrow buttons to scroll and select using the circle button.
- 5. The device returns to the new learning activity and lesson with the audio guide.

3.5 Program Settings

In Program Settings, users can change and customize various.

1)How to use the Program Settings

- 1. Press and hold both arrow buttons and circle button to enter Program Settings.
- 2. Users can move between options by using the arrow buttons.
- 3. Press the circle button to select the setting.
- 4. Press and hold the circle button to go back to the previous menu.
- 5. The setting is saved automatically by pressing the circle button and will return to the point of learning.

Tip:

Users can also open the Program Menu in the Program Settings. Press and hold the left arrow button and the circle button to move to the Program Menu directly.

Several options are available to change in Program Settings as follows. Users will change the options below in order.

3.5.1 Shuffle List

Users can set the contents' order in Basic Lessons, Custom Lessons, and Game. If the random order setting is on, the content will be played randomly. Otherwise, the content will be shown in ascending order. This setting does not apply to Music.

3.5.2 Writing Style

Users can choose between Common (Perkins Style) and Slate & Stylus style. Refer to <u>3.3 How to Use the Braille Blocks</u> for details.

3.5.3 Language

Taptilo supports English as default and other languages. The language options will be different based on the country.

3.5.4 Audio Instructions

Taptilo provides audio instruction when users start lessons and activities. The users can turn off the audio guidance.

3.5.5 Device Buttons

Users can listen to the explanations of audio guide for using the buttons on Taptilo.

3.5.6 Serial Number

Users can listen to the device's serial number. It is required when the user connect the device with the Taptilo app. The serial number of the device can also be checked into mute letter also braille at the bottom of the device.

4. Teaching Mode with Taptilo 4.0 App (App for students)

4.1 Getting Started

The Taptilo apps provide the same content in Taptilo device. Users can view contents without connecting

the device with the app, but the device connection is required to learn braille.

4.1.1 Download Taptilo 4.0

Users can download the app by searching "Taptilo" or "Taptilo 4.0" in the App Store for iOS or Google Play Store for Android.

4.1.2 Connecting Taptilo 4.0 to the Device

- 1)How to connect the device with the app
- 1. Launch the Taptilo 4.0 app.
- 2. Turn on the device and wait for the audio guide.
- 3. Tap "Connect device" on the app. click "I'll do it later" to use the app without connecting to the device.
- 4. Pressing the "Connect device", Taptilo 4.0 app searches nearby Taptilo devices. Bluetooth of the mobile device must be turned on to proceed. If

- Bluetooth is off, turn on Bluetooth in phone settings.
- 5. After the device search is complete, the serial numbers are shown on the pop-up screen. Tap the serial number of the device. The serial number can be found at the bottom of the Taptilo.
- 6.If the serial number is not found, click "Search Again".
- 7. If the device and the app are well connected, Users will hear a voice saying "Your device is now connected. Please go to your application to choose a lesson. ".

Tip:

For devices that have previously been connected to, the user can connect it by simply tapping a block logo on the app's screen while the device is nearby.

4.2 Overview of Taptilo 4.0 App

Users can select a lesson from the Taptilo 4.0 main screen. A description of each function is below(From top to bottom)

- 1)Notifications: Users can see notifications from Taptilo 4.0 here.
- 2)Check Device Connection: Users can check the device connection status. If a device is connected, the device serial number is displayed. Users can disconnect it on the screen. If the device is not connected, users can connect the device pressing the "Connect" button. Refer to 4.1.2 Connecting Taptilo 4.0 to a Device to see detailed description.
- 3)Lessons: Lessons are organized in two parts. Basic Lessons (Braille, Game, and Music) are at the top of the columns. Custom lessons and Favorites are at the bottom. For a detailed explanation of each lesson, please refer to <u>4.4</u> Basic Lessons.
- 4)Me: Check learning records here by creating an account. Refer to 4.5 Me for more details.
- 5)Settings: In "Settings", users change various settings to help themselves learn braille. The

users can also send feedback and ask for support. Please refer to <u>4.6 Settings</u> for details.

4.3 Create Account

Create accounts in Taptilo 4.0 so that learning progresses are saved. It is allowed to use the app without creating an account, but for effective braille learning, creating an account is highly recommended.

- 1)How to create an account
- 1. Turn on the Taptilo 4.0 app. The device does not need to be connected.
- 2.Click the "Create account" button at the top of the "Learn" menu. The same button can also be found in the "Me" menu.
- 3. Fill out the form in the page. Enter email, name, and password and re-enter the password. Password must be at least 8 characters long. The name cannot exceed 30 characters.
- 4.Enter all information and click the "Create Account" button at the bottom. By clicking this

- button, users agree to Taptilo 4.0's Terms of Service and Privacy Policy.
- 5.A verification e-mail will be sent to the email when the user registered as a member. Checking the email, verify the account by clicking the link in the email. If the user does not receive the e-mail within a few minutes, the user can send a verification e-mail again to the same address by clicking "Resend E-mail".
- 6. Once users have a verified account, sign-up is complete. Users can sign in from "Learn" or "Me".

4.4 Basic Lessons

The first menu in Taptilo 4.0 is "Basic Lessons". The contents of the Taptilo device and Taptilo apps are the same. The details of "Basic Lessons" are as follows. For more information on the main screen configuration, refer to 4.2 Overview of Taptilo 4.0.

4.4.1 Braille

Braille has the contents to learn all basic braille, from dots to punctuation marks.

- 1)How to learn a "Braille" lesson
- 1.Click on braille under basic lessons and choose the list the user wants to learn.
- 2. If the user clicks on the content, the user can check the content on the app screen. If the device and the app are connected, the content is also displayed on the Taptilo device's display.
- 2)"Basic lessons" screen configuration (Explanation from top to bottom of the screen)
- 1.Back: Click to move to the list.
- 2.Activity select: Allows users to select a learning activity. Taptilo 4.0 supports four learning activities: Read & Write, Read, Listen & Write, and Read & Write(Silent)

Tip:

Read & Write(Silent) activity shows the content on both the app screen and the Taptilo braille display but

does not read the content aloud. Since users cannot hear the content, it is helpful to test if the user knows the braille.

- 3.Contracted/Uncontracted Switch Tab: This is a tab where users select braille type. If the device is connected, app settings are applied to the device automatically. If the content does not have contractions, the content will not be changed.
- 4. Checkmark: When content is learned, the gray checkmark turns into blue. Checkmark can also be checked on the list.
- 5. Repeat: Users can listen to the content again by clicking the repeat button.
- 6. Previous Content: Moves to previous content.
- 7. Current Word: The content is shown as mute letters and the braille.
- 8. Next Content: Moves to the next content.
- 9.List: Check the list to which the content belongs. Select content from the list to move to that content directly.
- 10. Favorites: Users can add the content to Favorites by clicking the star button. Contents added to Favorites will turn into yellow. Users can

check the added content in "Learn" > "Custom Lessons" > "Favorites". A detailed description of Favorites can be found in 4.6 Favorites.

11. Shuffle: Press the button to shuffle the order of contents. When the setting is on, the button turns blue.

4.4.2 Games

Learn braille in a fun way with the game in Taptilo. The game consists of three topics.

- 1)How to play the braille game
- 1.Enter "Basic Lessons" > "Game".
- 2. Select the topic.
- 3. The content will be displayed on the app screen, and the content with one letter missing is shown on the braille display of the Taptilo device.
- 4. Read the braille on the braille display and write the missing letter using the block. Place the braille block at the position of the missing letter and press the circle button to check the answer.

5. If the user presses the circle button, the user can check whether the answer is correct in the app.

Tip:

The game supports both contracted and uncontracted braille. After learning all the contents in uncontracted braille, users may also practice contracted braille.

- 2) "Game" Screen Configuration
- 1.Back: Tap to go to the game lesson.
- 2.Contracted/Uncontracted Braille Tab: This is a tab where users can select braille to display. If the device is connected, app settings are applied to the device automatically. If the content does not have contractions, the content will not be changed.
- 3. Repeat: Users can listen to the content again by clicking the repeat button.
- 4. Previous Content: Move to previous content.
- 5. Current Content: The content shown in mute letters and the braille.
- 6. Next Content: Moves to the next content.

- 7.List: Check the list to which the content belongs. Selecting content from the list to move to that content directly.
- 8. Shuffle: Press the button to shuffle the order of contents. When the setting is turned on, the button turns blue.

4.4.3 Music

In Music, users can learn music braille based on the activities: Solfege, Notes & Rests, and Compose.

- 1)How to learn the Solfege and Notes & Rests:
- 1.Enter Learn > Music and select the list.
- 2. The music braille will be displayed on the app screen and the braille display of the Taptilo.
- 3.Listen to the content, write along using the braille blocks on the Taptilo. Place the braille blocks in the correct positions. Music only supports Read & Write activity.

4. Press the circle button on Taptilo to check the answer. Whether it is correct will be displayed on the screen.

2)How to compose

- 1.Use braille blocks of the Taptilo and write the music braille.
- 2. Press the circle button to save the first line.
- 3. Saved music braille will appear in the app.
- 4.To listen to saved music braille, press the circle button shortly on the device or tab the button on the app.
- 5. Press the right arrow button on the Taptilo device or the right arrow button on the Taptilo 4.0 app to move to the next line. Write and save music in the same way above.
- 6. Users can create a song up to 4 lines. To listen to the entire music, press and hold the circle button on the Taptilo or tap "Play all" in the Taptilo app.
- 7.Press "Delete All" to erase all music braille at once.

Tip:

Taptilo supports three instruments: piano, trumpet, and bass. Users may select three types of instruments at the bottom of the app screen. The default instrument is set to piano.

- 3)"Solfege" and "Note & Rests" menu configurations (Explanation from top to bottom of the screen)
- 1.Back: Press the Back button to go back to the music lesson.
- 2. Content: Notes or rests are displayed.
- 3. Repeat: Users can listen to the content again.
- 4. Previous Content: Move to previous content.
- 5. Next Content: Moves to the next content.
- 4)"Compose" menu configurations (Explanation from top to bottom of the screen)
- 1.Back: Press the Back button to go back to the music lesson.
- 2. Help: Get help while composing.
- 3. Show Lines: Users can check which line they are at. The yellow line is the current line.
- 4. Previous Line: Go to the previous line.
- 5. Listen: Listen to the music saved in the line.

- 6. Next Line: Moves lo to the next line.
- 7. Play All: Listen to the all lines.
- 8. Delete All: Delete all lines.
- 9.Instrument selection: Select the instrument among piano, trumpet, and bass.

4.5 Custom Lessons

Users can create custom lessons and add content.

- 1)How to create custom lessons:
- 1. Navigate to the bottom of the Learn menu in Taptilo 4.0.
- 2. Press the "+" button at the bottom of the screen.
- 3. There are two ways to add content to custom lessons as follows.
- (1) Create from scratch

This is a method of adding lists and contents directly through the Taptilo 4.0 app. Click "Create from scratch" to create custom lessons.

The description below is how to add lists and content from scratch:

- 1. Select "Add a new list".
- 2. Write content in the blanks and click the "Add" button to add to the list.
- 3. After writing all the content, click the "Save" button in the upper right corner.
- 4. Write the name of the list.
- 5. Click the "Edit" button to save the name of the list.
- 6. Now a new list has been created. Click on the list to view the contents included in the list.

Multiple lists and contents can be added to a lesson in the same way.

(2) Import from spreadsheet

If it is difficult to add a lot of content one by one, users may create lists at once by importing spreadsheet. The details of composing the lesson by importing files are as follows.

1. Choose "Import from spreadsheet".

- 2. Press "Choose file".
- 3. Navigate the file stored on the mobile device. 4.
 Select the file to add to the Taptilo 4.0 app and wait for a while.
- 4.A new custom lesson, including lists and contents, would be added.
- 5. If the file does not successfully add to the app, click "View instructions" under "Having trouble?" for a detailed explanation. If problems continue, reach out to sales@taptilo.com for assistance.

Tip:

Contents added to the Taptilo 4.0 app cannot exceed 9 characters. Also, contents must only include English, or number. They can not be mixed.

Only Excel is an acceptable file format when imported from a spreadsheet.

(3) Save to device

Lists in custom lessons can be added to the device. Those lists are can be learned through the device without a connection to the Taptilo 4.0 app.

How to add lists to the device:

- 1. With the Taptilo app and device connected, click the three dots to the right of the list to add.
- 2. Press "Save to device" at the bottom.
- 3. Press "Continue" and wait till the transmission is complete.
- 4. If successful, the user can hear the audio guide. The newly added lists are accessible in the Self-Study Mode and can be found before the Game.
- 5. If there is a list already saved in the device, a notice "The device currently has a saved list. Would you like to overwrite?" will be shown. If the user selects "Yes", the newly added list will replace the previously added list.

4.6 Favorite

For the contents which are difficult or needed to be reviewed, users may add them to "Favorite" to see all at once.

1)How to add content to "Favorite"

- 1. Select the contents and enter the word screen.
- 2. Tap the star button in the center at the bottom of the word screen.
- 3. When content is added to Favorites, the button turns yellow. If the user presses the button when it is yellow, it turns to grey and is deleted from the "Favorite".

Contents added to Favorites can be checked at once in "Favorites" at the bottom of the "Learn" menu.

If users select Go to "Previous" or Go to "Next", the contents will be shown within the Favorites. Users can also delete content from the Favorite by tapping the star button again.

4.7 Me

In the "Me" menu of Taptilo 4.0, users can check their current learning records as well as the classroom to which they belong. Taptilo 4.0 account is required to

access "Me". Refer to <u>4.3 Create Account</u> to find more details on sign-up.

- 1)"Me" menu configurations (Explanation from top to bottom of the screen)
- 1.Edit my profile: Users can edit their account name and profile picture. Click the Edit my profile button and select a different profile picture by clicking the Edit button at the bottom of the profile picture. The name is editable as well. When editing is completed, click "Save" in the upper right corner to save the change.
- 2. Statistics: A summary of the learning process of a current account. "Days Active" shows the number of days logged in. "Cards studied" shows the number of contents that have been learned. "List completed" shows the number of lists that have been learned.
- 3.Classroom: Shows the class the user currently belongs to. Click on a classroom to enter that classroom. In the classroom, users can check the scope and due date of assignments and quizzes, and complete them.

4.8 Settings

Users can set various setting options in Settings.

- 1)The details of each setting item are as follows.
- 1.My Account: Shows account information. Users can change the password and sync the progress so far. Users also can reset progress, log out, and delete accounts.
- 2.Device: Check whether there is a currently connected Taptilo device and the serial number of it. Or connect to the device with Taptilo by clicking the "Connect" button. For details on how to connect the Taptilo device to the app, refer to 4.1.2 Connecting Taptilo 4.0 to the Device.
- 3. Practice Settings: Various settings which help learn braille. Users may set various options according to the learning situation and level.

Detailed setting items are as follows.

- Writing style: Users select between common writing style and Slate & Stylus style. For more information

on Taptilo's writing style, refer to 3.3 How to Use the Braille Blocks.

- Play next when correct: With the setting on, move to the next content immediately when the answer is correct.
- Vibrate for the wrong answer: When the answer is incorrect, the mobile device vibrates. If a deaf or visually impaired is learning, or if the instructor is blind, turn on this setting to check the answer easily.
- Music tempo: Users can set the speed the song plays in the compose. 40 bpm, 60 bpm, 80 bpm, 100 bpm, 120 bpm are available. With 120 bpm being the fastest speed, 80 bpm is set by default.
- 4. Language: Select the learning language.
- 5. Alarm: Users can choose whether to receive notifications related to learning.

Detailed setting items are as follows.

- Practice reminder: This is an alarm that helps users learn braille at a set time every day. Turn on the setting and press it again to set the desired time.
- New assignment: Set whether to be notified when a new assignment is given.

- Assignment reminder: Set whether to be notified one day before the assignment due date.
- New teacher invite: Set whether to be notified when a new teacher sends an invitation.
- New classroom invite: Set whether to be notified when invited to a new classroom.
- Remote Class Invite: Set whether to receive a notification when invited to a remote class.

6) About

- Privacy policy: This shows the privacy policy of Taptilo 4.0.
- Terms of service: Shows the Terms of Service for Taptilo 4.0.
- Ask a question: If experiencing any problems or questions while using Taptilo 4.0, send an email through the button. We read all emails and respond promptly.
- Rate the app: Please rate Taptilo 4.0. Ratings are reflected in the App Store or Google Play Store.
- Open source license: This shows the open-source licenses used in Taptilo 4.0.

- App version: This shows the current app version. We recommend keeping the app updated for a better learning experience.

4.9 Start Remote Lessons with Taptilo

Taptilo 4.0 supports remote lessons. Users can learn braille even if the instructor is far away.

- 1)How to get started with remote lessons:
- 1. Check the remote braille invitation sent by Taptilo Classroom app.
- 2.Click "Start Class" to start remote braille learning. The Taptilo device and the app must be connected at this moment. If the device is not connected, a window asking users to connect the device would pop up.
- 3. When distance braille learning starts, the phrase "You are in a remote class" would show on. Self-study mode is not available during remote classes.

- 4. To stop the class during the distance braille class, click the "Leave class" button.
- 5. When the distance braille class is over, a pop-up window appears saying "Class ended", end remote braille lessons by clicking "Okay". If any problem occurs during class, users may report the problem by clicking "Report Problem".

5.Teaching Mode with Taptilo Classroom (The app for the teachers)

Taptilo Classroom helps instructors to organize classrooms and give quizzes or assignments to manage students' learning.

Taptilo Classroom can be downloaded from the App Store for iOS and the Google Play Store for Android. Taptilo Classroom provides a one-month free trial. After trial, it will be paid for 8.99 USD per each student, per month.

5.1 Create Account

An account is required to use Taptilo Classroom.

- 1)How to sign up
- 1. Launch the Taptilo Classroom app.
- 2.Press "Get started". If users already have an account, click "Log in" to log in.
- 3. Enter email, name, password, and re-enter the password. The password must include at least 8 characters.
- 4. Click "Create account" to sign up. If users click the button, users are deemed to have agreed to all of Taptilo's Terms of Service.

5.2 Taptilo Classroom App Configuration

The main menu of Taptilo Classroom is visible after signing in which consists of five menus.

1)Details below are a brief explanation of each menu.

- 1.Students: The Students menu allows teachers to add students' accounts and start remote classes. For more information on the Students menu, refer to 5.3 Students.
- 2.Lessons: Teachers can manage device connections along with braille learning content. More For information on Lessons, refer to <u>5.4</u> Lessons.
- 3. Assignments: Teachers create assignments and quizzes for each class or student and check the progress also manage existing assignments and quizzes. For more information on Assignments, refer to <u>5.5 Assignments</u>.
- 4. Progress: Teachers check the progress of each student in this menu. Teachers can check which lessons have been studied by far as well as the results of submitted assignments. For more information on Progress, refer to <u>5.6 Progress</u>.
- 5.More: This menu allows users to edit information, manage subscriptions, and access settings related to the Taptilo Classroom app. Please refer to <u>5.7 More</u> for details.

5.3 Students

Teachers can manage the student list and start remote classes in this menu.

5.3.1 Students Menu Configuration

The screen composition of the Student menu is as follows.

- 1.Select classroom view: User can choose how to display students. Users can view all students at once or by class. After entering the setting, click the button in the upper left corner to manage the classroom.
- 2.My classroom: This shows the current number of students. Taptilo Classroom is priced differently based on the number of students.
- 3.Invite: Users can add students by clicking the "Invite" button. For detailed instructions on how to invite students, refer to 5.3.2 Invite Students.

4. Student information: After inviting students, student information including name, profile image, and email account are saved. Teachers may check students' learning progress on the pop-up page by clicking student information. Teachers may start remote lessons on this menu. If the button next to the name is blue, it means the device is connected and ready for remote learning.

5.3.2 Invite Students

It is not possible to invite students right after signing up. Details of inviting students are as follows.

- 1.Click the "Invite" button at the top right of the Student menu.
- 2.Click the "Invite" button, then a window to select "New Student" or "Existing Student" would pop up. If the student to add has already signed up, select "Existing Student". Otherwise, select "New Student".
- 3.If the user selects "Existing Student", searching for students by name or registered email address

- is available. To invite students, click the circle button to the right of the student information to select and click "invite" at the bottom of the screen.
- 4. If the user selects "New Student", enter the student's name and choose whether to create a student account. If the user creates an account and the student log in to the Taptilo app with this account, the student will be able to receive the materials provided by the teacher app, such as assignments. Enter an email to create a new account for the student. Enter email and press "Invite". A verification email will be sent to the email address you entered. After verifying the email, creating an account is completed.

5.3.3 Managing Student Information

The page that appears when clicking Student Information is structured as follows. This is where teachers can view and manage each student's

learning progress. The screen composition of the student information page is as follows.

- 1.Student: Shows student's name, email, and profile image.
- 2.Edit student name: Edit student's name. A newly edited name is only visible for the editor and the name entered when creating the account will not be changed.
- 3.Start remote lesson: Click the button to start a remote class. If the student did not verify the email or did not register the account, the button would change to "Resend invitation" or "Resend email invitation". Both email verification and invitation are required to start remote lessons.
- 4. Statistics: Shows students' learning statistics such as the number of days studying in the Taptilo app, the number of contents have completed, and the number of lists has completed
- 5.Classroom Information: Shows classroom the student belongs to. A student can belong to multiple classrooms at the same time. Add or remove students from the classroom by clicking the edit button on the right.

6.Deleting a student: Delete a student by clicking the "Delete Student". Information about the student would disappear from the My Students list, but not delete the student's account.

5.3.4 Starting Remote Braille Learning

Taptilo Classroom supports remote braille classes. To conduct remote classes with Taptilo, the student must have a Taptilo device and log in to Taptilo 4.0.

- 1)How Teachers Get Started with Distance braille Teaching is as follows:
- 1.Tap on the student information to start remote braille learning. remote braille lesson is ready when the blue marker next to the student's name is blue.
- 2.Go to "Student" menu and press "Start Remote Lesson".
- 3.A notice on the remote lesson will show on. Teachers invite students by clicking "Invite" at the bottom.

- 4. Please wait till the student accepts the invitation. Cancel the invitation by clicking "Cancel invite".
- 5. If students do not accept the invitation or other issues arise, remote lessons may not start. If remote lessons do not start, check if the student is logged into the Taptilo 4.0 app and if the Taptilo 4.0 device is connected to the Taptilo device. If you continue to cannot start remote lessons, please contact us at support@taptilo.com.

2) Screen configuration is as follows:

- 1.Check Connection: Check remote connection quality with the color of messages and notifications. A green notification indicates connecting quality is great and a yellow notification is displayed while the connection is under evaluation.
- 2.Lessons: Same as lessons in Taptilo 4.0 app and the device. A teacher may select lists and contents. If the user selects content, the content is displayed on a remotely connected Taptilo of students.

3)How to end the remote lesson:

- 1. Click to check the connection status.
- 2. Names of students in lessons are shown.
- 3. Click "End remote lesson" at the bottom. A window will pop up.
- 4. Select "Yes, end".

5.4 Lesson

5.4.1 Lesson Screen Composition

The lesson menu consists of the following components:

- 1. Connected Devices: Check the number of devices connected. See the devices connected to Taptilo Classroom and manage the connection status.
- 2. Teaching settings: Taptilo Classroom allows users to connect multiple devices simultaneously. If multiple devices are connected at the same time, change the

setting here. The given options are "Group" and "Individual".

- Group: Control all connected Taptilo at once. If teachers select any braille content while the setting is "Group", the same content will appear on all connected Taptilo devices. This is helpful when the progress of the students participating in the same.
- Individual: Control each connected Taptilo in this option.
 - 3.Lessons: It has three lessons (Braille, Game, and Music) which are the same as provided by Taptilo 4.0 and the Taptilo device. For more details of each lesson, refer to 4.4 Basic Lessons.

4. Custom lessons

In addition to the three lessons provided by Taptilo, users may create custom lessons. For more details on custom lessons, refer to <u>4.4.4 Custom Lessons</u>.

5. Favorite

Any content of the Taptilo app can be saved to Favorite. Users can check saved content on one page. For more details on Favorite, refer to <u>4.6 Favorite</u>.

5.4.2 Manage Connection

Taptilo Classroom connects to multiple devices simultaneously via Bluetooth. Connected devices can be controlled in a group or individually.

- 1) How to connect devices on Taptilo Classroom:
- 1. Press 'Connected Device' to open the connection settings, a list of students will appear.
- 2. Check the serial number of the device to be connected. The device serial number can be found at bottom of the Taptilo device.
- 3. After confirming the serial number and student, click the 'Connect device' button to connect to the device.
- 4. The pop-up window shows the list of currently connectable devices. Tap the serial number of the device. If the serial number does not show on, try "Search Again". If the device does not appear, check the Bluetooth connection of the mobile device.
- 5. A green mark appears in the upper left corner of the profile picture when the connection is successful. And the "Connect with Taptilo" button is changed to "Disconnect".

2) How to disconnect Taptilo devices

- 1. Press "Connected devices" to open the connection settings.
- 2. Find out the device to be disconnected and press the "Disconnect" button on the right.
- 3. Pop-up window asking "Do you want to disconnect from Taptilo?" appears, tap "OK" to disconnect.

5.4.3 Basic Lessons

The basic lessons of Taptilo Classroom are the same as the lessons of Taptilo 4.0 (The basic app of Taptilo). For more information on basic lessons, refer to <u>4.4.1</u> Braille, <u>4.4.2 Game</u>, and <u>4.4.3 Music</u> in <u>4.4 Basic Lessons</u>.

5.4.4 Custom Lessons

The way to manage custom lessons in Taptilo Classroom is the same as in Taptilo 4.0 (The basic

app of Taptilo). For more information on custom lessons, refer to <u>4.5 Custom lessons</u>.

5.4.5 Favorite

The way to manage and use the Favorite feature is the same as in Taptilo 4.0 (The basic app of Taptilo). For more information on favorite, refer to <u>4.6 Favorite</u>.

5.5 Assignments

In Taptilo Classroom, teachers may present assignments and quizzes. It can be used in a variety of ways, such as preparing for the next lesson, reviewing the lesson, and evaluating learning progress.

Tip:

Differences between homework and quizzes: Homework and quizzes differ in whether students are allowed to check the answer and retry.

- Homework: Students have three chances to answer the question. If students cannot get the correct answer over three times, they can check the correct answer.
- Quiz: Students have only one chance to answer the question. And correct answers will not be shown for incorrect answers while taking the quiz.

5.5.1 Assignments Menu Configuration

- 1) The Assignments menu consists of the following components: (Described from top to bottom, left to right)
- 1. Select classroom view: Show assignments by class. Select the classroom by clicking on the classroom list.
- 2. Create: Users can create assignments and present them to students. For more details, refer to <u>5.5.2</u> Create Assignments.

- 3. Assignment Type: Shows the homework and quizzes. Select 'All' to view all of the assignments. Select Homework or quizzes to view respectively.
- 4. Lists of Normal Assignments and Quizzes: This shows a list of homework and quizzes assigned to the selected classroom. Check the results of assignments here. For more details, refer to <u>5.5.3</u> Check Assignments Result.

5.5.2 Create Assignments

To create new assignments, students must be invited to the classroom. refer to <u>5.3.2 Invite Students</u> to find out how to invite students.

- 1)How to create new assignments:
- 1. Open "Assignments" in Taptilo Classroom.
- 2. Select the classroom name on the upper left to create an assignment.
- 3. Press the button "Create" on the upper right.
- 4. Select assignment type. Students will get three chances in normal assignments and only one in

- quizzes. Students can check the correct answer in normal assignments but not in quizzes.
- 5. Select the list to present. Lists belonging to "Braille" of the basic lessons can be assigned.
- 6.Click the toggle to assign the entire list or to assign the list in random order.
- 7. Assign the entire list: If the setting is on, the entire list is assigned. When the setting turns off, users may select the number of total questions 5 of each.
- 8. Choose an activity to assign among Read & Write, Read, Listen & Write and Read & Write(Silent).
- 9. Choose braille type between contracted and uncontracted.
- 10. Choose the classroom and the student to assign. The teacher may assign to multiple students at once only if students are in the same classroom.
- 11. Set the due date. The setting of time is optional and does not affect assignments.
- 12. Click "Assign" to create assignments. If the button is grey, check over if the settings above are completed.

Created assignments will appear on the assignments menu.

5.5.3 Check Assignments Result

Created assignments will appear on the menu "Assignments". Click the assignment to open up the detailed information including activity, braille type, number of questions, due date, the number of students assigned and turned in.

The achievement of the assignment is shown by percentage and colors.

Green: Completed over 80% ~ 100%

Yellow: Completed over 60% ~ 80%

Red: Completed over 0% ~ 60%

- 1)The first way to view assignment results in detail is as follows:
- 1.Select the assignment to view on the menu "Assignments".

- 2. The names of students assigned are shown at the bottom part of the page. Click the arrow on the right of the name.
- 3. Achievement information and whether the student turned in assignments in time will show below.
- 4. Click "View more" to find out questions answered correctly and wrongly.
- 2)Another way to view assignment results in detail is as follows:
- 1. Open the "Progress" menu in Taptilo Classroom.
- 2. Select the student to check achievement.
- 3. There is a tab that has two options "Lessons" and "Assignments" just below the student name and profile. Choose "Assignments" on the right.
- 4. Select the classroom that the assignment was presented to.
- 5. The list of assignments appears after choosing the classroom. Choose the assignment type and view in groups by clicking the funnel-shaped icon on the right side.

5.6 Progress

Teachers view and manage progress by classrooms and students respectively in "Progress".

5.6.1 Progress Menu Configuration

Progress menu configuration is as follows:

- 1.My classrooms: Shows students by classroom. Select "All" to show all of the students on a page.
- 2. Students' account status: This shows if students' accounts are verified. If verified, the icon turns blue. Otherwise, the icon remains gray. Log in to the email that entered creating the account and check the inbox. Unless students will not be able to participate in remote lessons and assignments.
- 3. Student information: Shows student's name, email, and profile image.

5.6.2 Individual Progress

Click student information to view progress individually.

Individual progress menu configuration is as follow:

- 1.Back: Move back to the "Progress" menu.
- 2. Assign to: Choose the student to display the specific progress of a student.
- 3.Lessons & Assignments selection: With this tab, users change the display mode. To show progress by lesson, turn on Lessons. To show progress by assignment, turn on Assignments.
- 4. Select lesson: Choose the lesson to display the specific progress of a lesson.
- 5. List and progress graph: This shows lists included in the selected lesson. Progress graphs are shown under lists, showing how much has the list been learned.

5.7 More

Some useful functions can be found in "More".

5.7.1 My Account

Users manage their accounts and data in this menu.

The configuration of the menu is as below:

- 1.Login: The current login account is shown. Users can change the password by clicking "Change password".
- 2. Data: When the mobile device is not connected to the internet, the learning data is saved as cache. Users still may learn off the internet, but to save the learning progress and custom lessons click "sync local data". A new screen saying "Please wait a moment while we are syncing your data" will appear.
- 3.Log out & Delete account: Users may log out and delete their current account in this menu.

5.7.2 Subscription

To access remote braille lesson service, Taptilo Teacher Membership is required. One-month free trial of membership is provided for new users. Teacher Membership is 8.99USD/month per student

but may vary depending on the number of students. Membership status is shown and users without membership may start a free trial or subscribe on this menu.

5.7.3 Settings

- 1.Practice Settings: Various settings to help in learning braille. Users may set various options according to the learning situation and level. refer to 4.6 Settings to find out further information.
- 2.Teaching mode: Select the initial teaching mode between "Group" and "Individual". Teachers can change teaching mode in remote lessons as well, this is an initial set of teaching the mode.
- 3. Language: Select the learning language.
- 4. Notification settings: Users can choose whether or not to receive notifications. Detailed setting items are as follows.
- Practice reminder: This is an alarm that helps users to learn braille at a set time every day. Turn on the setting, and press it again to set the desired time.
- Classroom: Turn on the notification to receive an alarm when the student that the user invited has

verified the account or when the student submitted assignments.

Date & Time: Select date format and time format to display on the app.

5.7.4 Support

- 1.Ask a question: If experiencing any problems or questions while using Taptilo Classroom, send an email to us. We read all emails and respond promptly.
- 2. Rate the app: Please rate Taptilo 4.0. Ratings are reflected in the App Store or Google Play Store.
- 3. Privacy policy: Shows the privacy policy of Taptilo Classroom.
- 4. Terms of service: Shows the Terms of Service for Taptilo Classroom.
- 5. Open source license: This shows the opensource licenses used in Taptilo Classroom.
- 6.App version: This shows the current app version. We recommend keeping the app updated for a better learning experience.