Users manual

*Brain*Central

System consisting of device and app

Perception
selectivity test

Perception
selectivity trainer

BrainAudiometer
Light + Professional

AlphaTrainer
Home + Professional

*Brain*Central

Introduction

The system consisting of *Brain*Central device and *Brain*Central app is the modern further development of the AUDIO4LAB as a combination device for

- User administration
- Central audiometer for testing and training low-level functions
- AlphaTrainer for lateral training
- Perceptual acuity testing and training

The operation itself takes place via a tablet on which the *Brain*Central app is installed. The connection between the two devices is then established via Bluetooth®*.

The functions are modular, so that the user can put together the scope of services themselves. Each module can be added later as an additional license. For this reason, these instructions also have a modular structure, so that you already have all the instructions you need. You can find out how to add licenses at a later date in the **License extension** section in the grey chapter **Technology and Maintenance**.

These instructions for use for the *Brain*Central system are aimed at trainers and trainees with and without previous pedagogical/therapeutic knowledge. It describes the modules.

Those functions that are available in the Professional version of AlphaTrainer but not in the Home version or in the Professional version of the Central Audiometer but not in the Light version are specially marked. The modules are color-coded in the chapters of this manual to help you find your way around. You can see the color coding in the adjacent table of contents.

These instructions for use contain installation and operating instructions for the device. They will tell you how to use the device and what technical options it offers you.

If you have any difficulties using the system, please let us know so that we can improve the device, the app and the instructions for use.

---

*   Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

Inhaltsverzeichnis

Safety instructions

The *Brain*Central device is intended to be used in combination with the *Brain*Central app to test and train a client's low-level functions and perceptual separation acuity and to perform lateral training. To do this, follow the instructions in this user manual.

All other uses of the device and the app that do not comply with these purposes are contrary to the intended use and are therefore not permitted.

When operating the *Brain*Central device and the *Brain*Central app, special attention must be paid to the following safety instructions:

⚠	**Attention!**	Do not use the devices in rooms containing flammable mixtures, such as mixtures of anesthetics and air or oxygen or nitrous oxide.
⚠	**Attention!**	Never bring the devices into contact with ultrasonic baths, running water or chemical cleaners such as thinner, alcohol, etc.. It could be damaged or destroyed.
⚠	**Attention!**	Ensure that the cables of the additional devices are not pulled out of the appliance's sockets. The plugs could break off or the cables could be damaged.
⚠	**Attention!**	Only use the appliance in dry rooms and protect it from moisture and dampness - both when working and when switched off. You or third parties could be injured. The device could also be permanently and severely damaged.
⚠	**Attention!**	Never open the housing of the appliance. You or third parties could be injured. In addition, the devices could be permanently and severely damaged. Opening the devices automatically voids all liability and warranty protection.
⚠	**Attention!**	Only disconnect the switched-off *Brain*Central from the mains by unplugging the power supply unit from the socket. Only then remove the power cable from the device.
⚠	**Attention!**	ONLY SWITCH OFF the device at the device's power switch IN EXCEPTIONAL CASES. Any processes running in the background in the internal memory will be interrupted. Data may be lost and the internal firmware could be damaged. To switch off the device, use the Switch off device function in the special menu ☰ , which you can access in the main menu.

⚠ **Attention!**	Only use the additional equipment recommended by *Medi*TECH during training. These comply with the necessary requirements and safety regulations for medical devices and are specially designed for training.
☞ **Note:**	*Medi*TECH assumes no guarantee or liability for actions that violate these safety instructions and the instructions in this document.

📖 ℹ **Follow the instructions for use before use!**

Scope of delivery

The *Brain*Central device is supplied with the following components:
- *Brain*Central device
- Instructions for use
- USB charging cable (USB-A to USB-C plug)
- USB stick with the purchased license (incl. adapter for installing new licenses)
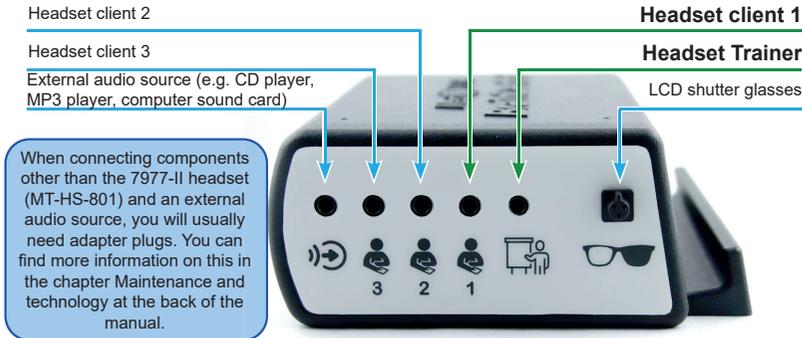- License for the *Brain*Central app (to download from the Playstore for use on your own tablet)

Also required:
- Tablet for operating the device
- MT-HS-801-II headset
- alternatively microphone and headphones - in combination with adapter cables. Cable set available as BC-CBL 1 to enable the most common connection variations.
- LCD darkening glasses

Connecting the device to accessories

In this chapter, you will learn how to connect the *Brain*Central to the standard accessories. You will find information on connection variants at the back of the manual.

1. Place the *Brain*Central in front of you so that you can clearly see the left side with the connection sockets.

2. Plug the required accessory components into the respective sockets as shown in the drawing:

Headset client 2

Headset client 3

External audio source (e.g. CD player, MP3 player, computer sound card)

Headset client 1

Headset Trainer

LCD shutter glasses

When connecting components other than the 7977-II headset (MT-HS-801) and an external audio source, you will usually need adapter plugs. You can find more information on this in the chapter Maintenance and technology at the back of the manual.

3. Push the plug into the socket until you feel it click into place.

4. With the LCD darkening glasses, make sure that the gap in the plug at the top surrounds the guide of the socket.

Note: You will also see the symbols in the *Brain*Central app. For example, if the app asks you to insert the headset plug into the Client 1 socket, this means the fourth socket from the left.

Which accessories are needed when?

- The accessories listed here in green (headset **client 1 + trainer**) are always required during sessions so that the client and trainer can hear each other. The headset is also recommended for the central audiometer and WTT so that the client and trainer can communicate via headphones.

- The blackout goggles are required for lateral training with the **AlphaTrainer** module.

- The headsets for **clients 2 and 3** are required for group training. They can also be used when testing and training perceptual separation acuity and low-level functions for accompanying persons, so that parents, for example, to gain an impression of their child's abilities.

Charging the device battery

The *Brain*Central is designed so that it can be used in both battery and mains adapter mode. However, in order to maintain good, undisturbed audio quality, we recommend using the battery. The battery must of course be charged from time to time.

Tip: In battery mode, you and your client are also more mobile with the device and can walk around the room more easily..

1. Turn the *Brain*Central so that you can see the right-hand side clearly.

2. Plug the USB-C cable included in the scope of delivery into the socket provided. Drehen Sie das *Brain*Central so, dass Sie die rechte Seite gut sehen können.

USB-C socket for charging   Charging indicator
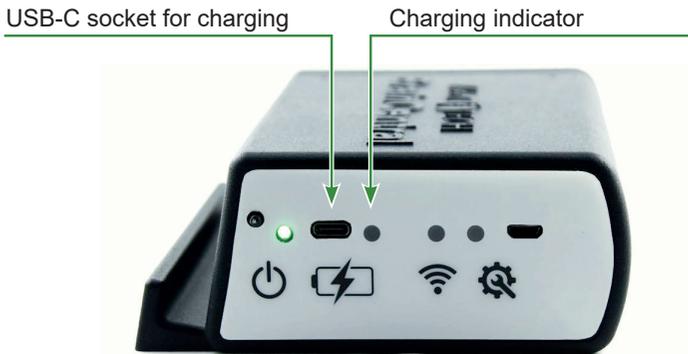
3. Insert the other plug of this cable (USB-A) either
   • into a USB charger (e.g. 5V/2A) and connect it to a conventional socket (fastest charging option!!) or
   • into a USB power bank or
   • into a USB-A socket on a computer and switch it on.

The green charging indicator to the right of the USB-C socket starts to light up. This is the sign that the internal battery is charging. The device is fully charged when the green charging indicator does not light up (anymore) when connected to a power source.

A full charge takes about 2:30 hours (with a 5V/2A power supply) if you do not use the device during this time. If you use the device during this time or charge it with a power bank, a weaker power supply unit or on the computer, the charging time will be extended because you are accessing the battery or reducing the charge through use.

Note: In the *Brain*Central app, the charge status of the battery will be displayed at the top left as the remaining charging time. Low values indicate that the battery needs to be charged soon. BC000016 |10%|
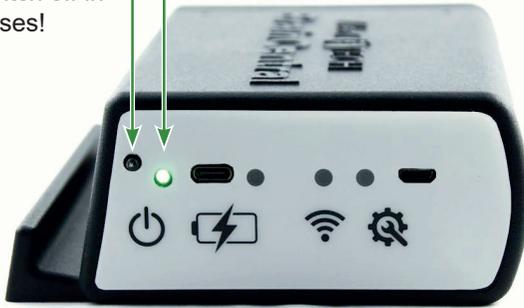
Switching the device on

1. Press the power button for about one second. This starts the appliance. The green operating light illuminates..

    Note: It does not matter whether the device is currently connected to the mains or a power bank or whether it is to be used in battery mode. However, it is recommended to use the device in battery mode.

Power switch   Operating light

Only use to switch off in
exceptional cases!

Switching off the device

At the end of a session, you will want to switch off the *Brain*Central device. Especially if you are working with the device in battery mode, we recommend switching it off to avoid draining the battery unnecessarily.

1. On the tablet, tap the button with the three horizontal lines in the main menu at the top left of the *Brain*Central app. A window with several entries appears.

2. Tap the **Switch off** device entry at the bottom. This tells the *Brain*Central device to switch itself off.

> ⚠ **Attention!**   If there is no connection between the device and tablet, you can also press the power button for about 5 seconds. This also switches the device off. However, this causes an abrupt stop of all running functions. If data is being written to the internal memory, it may be damaged. This could also damage the electronics.
>
> Only switch the device off in this way in exceptional cases!

Connect the device to the tablet

1. If you have not already done so, download the *Brain*Central app from the Playstore.
2. Switch on the *Brain*Central device.
    Wait about 20 seconds until the device is ready for operation.
3. Start the app by tapping on the *Brain*Central app icon.

Note: It is NOT necessary to pair the *Brain*Central device with the tablet in the tablet's settings menu.

When you log in to the app for the first time ...:

A login screen appears. This will ask you to register in the app.

1. Tap on the Register button. The trainer input window appears.
2. Enter the required data.

    You will find instructions on how to proceed in the purple-colored chapter in the description **User management - Entering and selecting trainers**.

3. Depending on your general tablet settings, you will be asked to agree to the location determination and the connection to Bluetooth® *. Without these consents, you cannot connect the tablet to *Brain*Central and therefore cannot use it.

    Assurance: *Medi*TECH has no interest in your current location and does not collect any data from it. For technical reasons, however, the app cannot find the *Brain*Central device without location approval, so approval is required.

4. The app will now start searching for a *Brain*Central device in the vicinity. The **Device Manager** menu appears.

---

* Bluetooth® is a registered trademark of Bluetooth SIG, Inc

If the connection is not established automatically ...:

1. Tap on the magnifying glass 🔍 , the app should not start the search auto-matically. It will then start the search. A circle starts to rotate next to the magnifying glass. Once the app has found a device, a strange combination of letters and numbers is displayed. **Status: Disconnected**. This is the identifier for the *Brain*Central device, but you do not need to remember it.

2. Tap the 🔗 button to establish the connection manually. The entry changes to Status: connecting ... After a certain time, the status changes to Status: connected. The device and the app can now communicate with each other.

If you want to change the BrainCentral ...

If you have previously used the tablet with a specific *Brain*Central but now want to use a different *Brain*Central, proceed as follows:

1. Start the device manager 🗂 BC100074 . A favorite should be entered in the window - with the designation BC10xxxx and a bracket with a strange de-signation behind it.

2. Tap on the red cross behind the entry for this *Brain*Central
    Favorit: BC000016 (C9:A0:62) ✖ A prompt appears asking whether you are sure you want to delete the saved favorite.

3. Tap OK to delete the entry. The window closes and a favorite is no longer selected.

4. Switch on the new *Brain*Central. Make sure that the previous *Brain*Central is not nearby or at least not switched on. Wait about 20 seconds until the device is fully operational.

5. Tap on the magnifying glass 🔍 . The app starts searching for *Brain*Central devices in the vicinity. After a few seconds, your device will be displayed.

6. Tap the 🔗 button behind the entry to establish the connection. You can now use the device to conduct sessions or analyze evaluations.

Operating the BrainCentral app

Once you have established the connection between *Brain*Central and the *Brain*-Central app and connected the technical accessories, the *Brain*Central device is ONLY THERE. From now on, you control everything with the *Brain*Central app. In this chapter, you will learn how to work with the app.

Main menu

The central element of the app is the main menu. This is where you start the individual modules, provided they are included in your individual license.
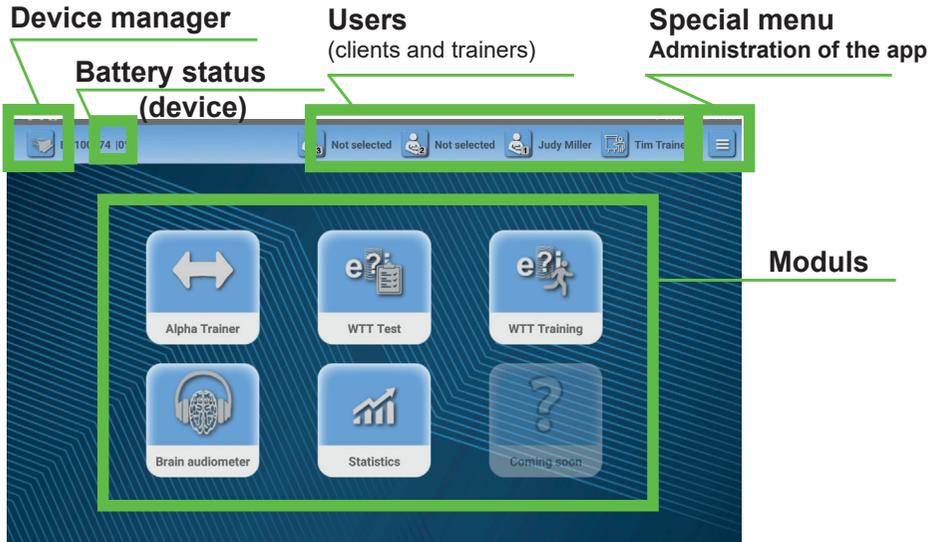
The clearly visible modules are activated for you. You can purchase licenses for modules that have not yet been activated at any time.

	Buttons are gray symbols with a blue rectangle. You can tap these to start a sub-function. In a few places, buttons are also gray. You can then click on them to switch between windows, for example.
Judy Miller	Button with additional information. Here: the currently selected client 1 is Jana Kindermann

You can return to the main menu from almost anywhere in the *Brain*Central app. To do this, tap this back button in the top left corner of a window.

Entering and managing users

In the *Brain*Central app, you can enter users, i.e. both clients and trainers, and select and delete them for the respective tests and training sessions. All this is done in the main menu, where you also start the modules.
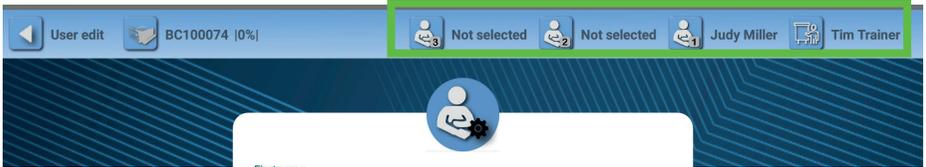
1. In the main menu, tap on one of the client buttons in the top bar. This opens the **user administration**.
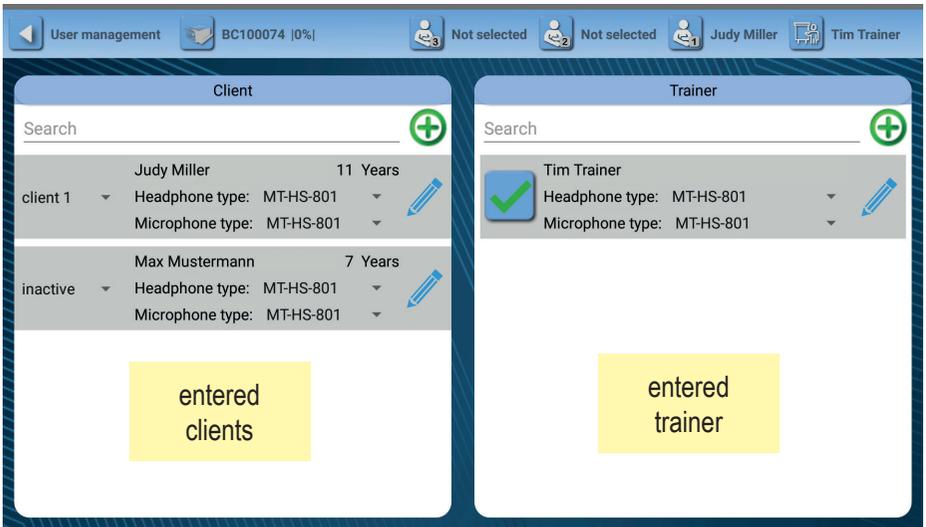
On the following pages you will learn how to enter, select and delete trainers and clients.

Entering and selecting trainers

In this section you will learn how to create, change and select trainers.

1. Tap on the plus ⊕ in the right-hand field. This opens an input field.

Home-/Light-Lizenz:
1 Trainer

2. Tap on the **First name** line. A keyboard appears at the bottom of the tablet.

3. Enter the **first name**.

4. Use the Tab key to switch to the **Last name** field or tap the field.

5. Enter the **lastname**.

6. Use the Tab key to switch to the **email** field or tap the field.

Note: Only use letters and numbers. Spaces and hyphens are possible. Special characters are excluded.

7. Enter the **email address of the trainer**.
   Use the Tab key to switch to the **Password** field or tap the field. You can use the eye at the end of the line to display the password so that you can check it.

   Important: Remember the password well! There is no way to reset or read it if you lose it.

   A few conditions must be met when entering the password. It must:
   • consist of at least 8 characters.
   • contain at least one uppercase and one lowercase letter.
   • contain at least one special character and one number.

8. Tap on the **Save** button. This closes the input window and returns you to **user administration**. The name appears in the list. The currently active trainer is marked with a green tick.

   Note: If changes need to be made to the trainer data, tap on the blue pencil. The input field opens again and you can make the necessary changes. Then confirm the changes by tapping **Save**.

9. Tap on the entry for the trainer who is to be called up for the upcoming session. This person must log in with email and password.

Entering clients

Clients are always assigned to the trainer under whose user profile they were created. This means that only these trainers can access and view the client's data and results.

Tip: Before entering data, make sure that the client has already been entered and only needs to be selected. The clients are sorted alphabetically by first name. You can enter a client name in the line above the clients already entered. If this client has already been entered, it is displayed and can be selected directly.

1. Tap on the plus ⊕ in the left-hand field. This opens an input field.

C   T

Home-/Light-Lizenz: 3 Klienten

2. Tap on the **First name** line. A keyboard appears at the bottom of the tablet.

3. Enter the client's **first name**.

4. Use the Tab key to switch to the **Last name** field or tap the field.

5. Enter the **last name**.
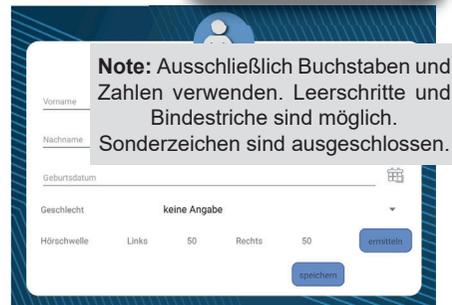
Note: Ausschließlich Buchstaben und Zahlen verwenden. Leerschritte und Bindestriche sind möglich. Sonderzeichen sind ausgeschlossen.

6. Use the Tab key to switch to the Birthday field or tap the field. Here you can enter the client's **date of birth** in several ways:

   • Tap in the field and enter the date using the keyboard.

   • Tap on the calendar symbol ⌗ to the right of the input field. This opens a new window in which you can either enter the date using the number wheel on the left or select it from the corresponding calendar page on the right. Confirm your entry with **OK**.
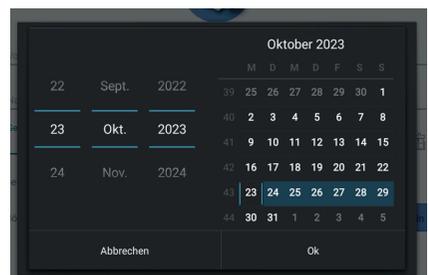
Tip: Entering with the number wheel is particularly easy.

7. Tap on the current entry in the **Gender** field and change it as required by tapping on the desired entry.

Hearing threshold

*   If you have already entered the client in advance of a session, tap the **Save** button. This will save the data.
*   If the client is currently present, you can now determine the hearing threshold as follows.

Determining the hearing threshold (= audio threshold)

You determine the hearing threshold to compensate for different hearing abilities in the ears during training. On the other hand, you generally adjust the volume of the headphones so that the client feels comfortable and not too loud during the session. This is particularly important in group training when several clients are training at the same time. You can change the specific volume of individual audio files and microphones during the session, especially for lateral training with the **AlphaTrainer** module.

1. Tap the **Determine** button after the **hearing threshold** entry. This will open the following window.

2. Have the client put on the headphones that are connected to the output socket selected in the upper part of the window: **Client 1 / 2 / 3 or Trainer**.
3. In the **headphone type** selection window, select the headphones used. If this is not included in the list, select **Other**.

4. Tap on the green arrow ▶ in the left area. The client should hear a short beep on the left ear that is repeated continuously.

5. Change the volume of the beep with the following buttons:

    •   Button ➕ : Sound gets **louder**. The green bar rises.

    •   Button ➖ : Sound becomes **quieter**. The green bar shrinks downwards.

6. Set the sound so that the client **can just hear** it.

7. Tap the red square ■ to accept the determined value.

8. Tap the green arrow ▶ on the right-hand side and determine the hearing threshold on the right ear in the same way. If the hearing threshold is set appropriately, tap the red square ■ to accept the value.

9. Tap the **Save** button. This ends the process and returns you to the **client selection**.

    Note: If, when determining the hearing threshold for a client, you notice that the values in the ears are very different and a one-sided hearing impairment is not known, it may be advisable to consult an ENT specialist or hearing aid acoustician.

Selecting a client

You have now found the client you want to work with.

1. In the **user administration**, tap on the small black triangle in front of the client's name.

2. Tap on the socket assignment that you want to assign to the client. The field closes and the client is selected. Its name is now displayed in the top line of the app. A client must be assigned to **client 1**.
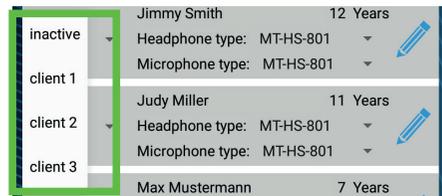
    Note: If you are only working with one client in the upcoming session, select the entry **Client 1**. This is the client that is selected for the central audiometer and the WTT modules.

3. For group training in the **AlphaTrainer** module, select a separate client for each client in the group. You can set the volume levels separately for each client in the **AlphaTrainer** module.

WTT test module

> not available in home / light licence

The WTT test (short for perceptual discrimination test or also known as the Efi-Eki test) is a standardized and proven way of determining a client's ability to distinguish particularly short so-called plosive sounds. These are important for perceiving differences in speech. Different sounds give words and thus sentences completely different meanings, which can lead to misunderstandings.

Procedure for the WTT test

1. In the main menu, select the client with whom you want to carry out the test as **Client 1**.
2. Have the client put on the headphones that are plugged into the **Client 1** output socket on the device.
3. Tap the **WTT test** module in the main menu. The test menu opens.

4. Tap the round start button in the middle of the test menu. The client will now hear a briefing on the test via the headphones for around 1:10 minutes and then the test itself.

   Note: If you would like to listen in, you can of course do so, but you should be able to hear the client's answers well so that you can enter them correctly into the app.

During the briefing, the client is asked twice to raise his hand on the side where he is hearing the voice. So don't be surprised about the raising of the hand. However, check whether the left hand (as seen by the client) is raised first and then the right hand. If this is not the case, the headphones may be on backwards. In this case, stop the instruction by tapping the pause button (picture). Put the headphones back on correctly and continue the instruction. To do this, tap the start button again. The client will now name VKV (vowel-consonant-vowel) words one after the other.

5. Enter these into the app by tapping the corresponding button. When a new word appears in the middle of the screen, your input has been registered.
    Important: It does not matter which VKV word is in the middle of the screen. This would have been the correct solution, but may differ from the client's answer. Only really enter the client's answer.
6. You only have a few seconds to enter it, as the next VKV word will follow and the app will already recognize the solution for the new word as correct.

    Exceptional cases:
    *   If the client has named a completely different word, e.g. ELI, ESI, ERI, ..., tap the button Andere Antwort.
    *   If the client has not named a word, tap the button Keine Antwort.

After 32 words, the client will not name any more words for the time being. In addition, there is no longer just one word in the middle of the screen. Instead, there are now two words. This is the sign for you that the first part of the test is finished. The client will now hear the instructions for the second part of the test.

Note: If you have the feeling that the client had a lot of trouble with the first test and has given a lot of incorrect answers, this could indicate insufficient sound discrimination. If this is the case, the second part of the test will be even more challenging. Decide whether you still want to burden the client with this or stop the test at this point..

         The guideline is about 10 incorrect words.

The second part of the test is similar to the first part, but is more challenging for the client and for you: in the best case scenario, the client hears and names two words directly one after the other.

7. Enter the answers again. Make sure that you keep the order in which the client named the words. Do not be guided by the display.

After 16 word pairs, the second part of the test is finished.

An evaluation now appears on the tablet.

In the left-hand column you will see the global evaluation of all 32 words of the first test and in the right-hand column the evaluation of the second test. You can see the words that would have been correct and in brackets the sound that you entered: e.g. EFI (F). On the right are the results for the word pairs - broken down individually.

*   If the answer is correct, the entry is marked with a green tick ✓ EBI (B)
*   If an incorrect answer was given or entered, you will see a red cross. ✗ EBI (D)
*   In the middle you can see how often which sound was correctly named.
8. Tap the black cross ✖ on a blue background to close the window.

Tip: If there is a lot of confusion with certain combinations - e.g. always D and T or G and K - this sound differentiation can be specifically addressed with targeted training.

Tip: Some clients find it helpful to close their eyes during the test in order to concentrate better. This is of course permitted.

Important: The WTT test is a standardized and therefore always the same test. Children with automation disorders are particularly adept at developing compensation strategies and memorizing quickly. Children often know the order of the words after just one or two test runs. To avoid this, do not carry out the test too often and too quickly one after the other.

You can call up the evaluation at any time in the Statistics module. To do this, follow the steps in the orange section.

Module WTT-Training

in Home-/Light-Lizenz reduziert

This module is used as a training solution for the perceptual discriminatory acuity assessed with the WTT test.

The client hears VKV words - similar to the WTT test. These are offered either individually or as word pairs. The answers can be entered by the trainer or independently by the client, provided the client is able to correctly assign the sound combinations heard to written letter sequences.

With WTT-Trainer, you can cater specifically to the needs of individual clients or client groups. The range extends from very different few words to very similar many words.

1. Select the client with whom you want to carry out the training as **client 1**.
2. Have the client put on the headphones that are plugged into the **Client 1** output socket on the device.
3. Tap the **WTT training** module in the main menu. The training menu opens.
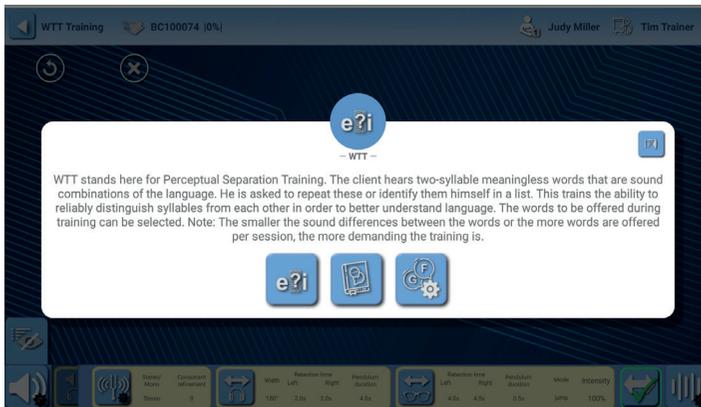
You now have the following options in this training menu:

e?i	Start training run. A word list must already be created for this. If this is not the case, the button is deactivated.
	Create word list or select from existing word lists.
	Modify training run (number of tasks within a training run and presentation as individual words or word combinations)

Start WTT training

1. Tap on the [e?i] button. The training window opens. The training starts immediately with the first word or word combination.
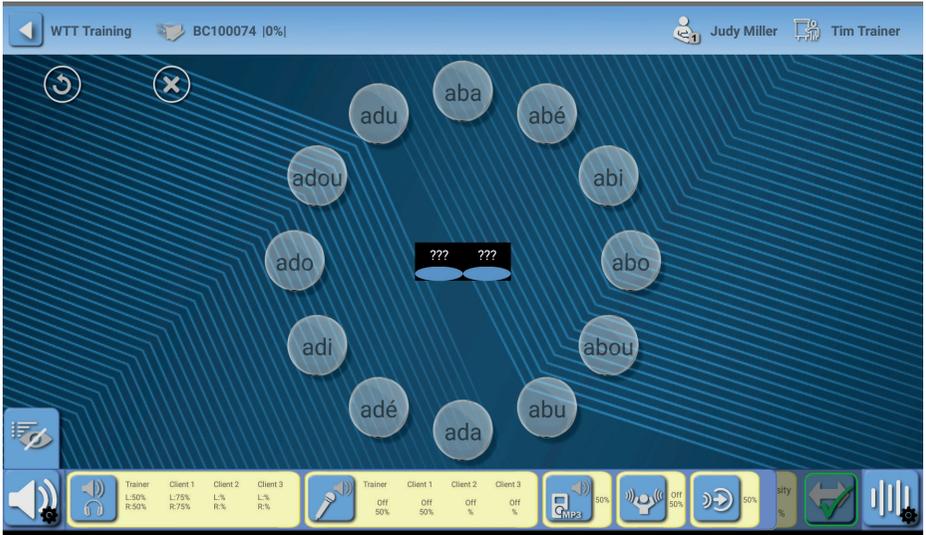
There are now two options for entering the answer:
- You hold the tablet in your hand. The client hears the word, repeats it and you tap the corresponding letter combination.
- The client holds the tablet in their hand, hears the word and taps in the corresponding combination of letters.

Which option you choose depends on the client's reading ability and sound-to-letter conversion, as well as their fine motor skills. If he is able to enter and link what he hears and what he reads, there is nothing to stop him from tapping the word himself.

After an answer:
- If the correct answer has been entered, the next word is heard.
- If an incorrect answer is entered, the circle with the word turns red and the announcement is repeated - up to two times.

Possibilities during the run-through:
- If the client was unable to hear a word (often the very first one), it can be repeated. To do this, tap 🔄 in the top left corner.
- If you want to cancel the training run, tap ❌.

Create and select word lists

1. Tap on the button. The word list window opens.
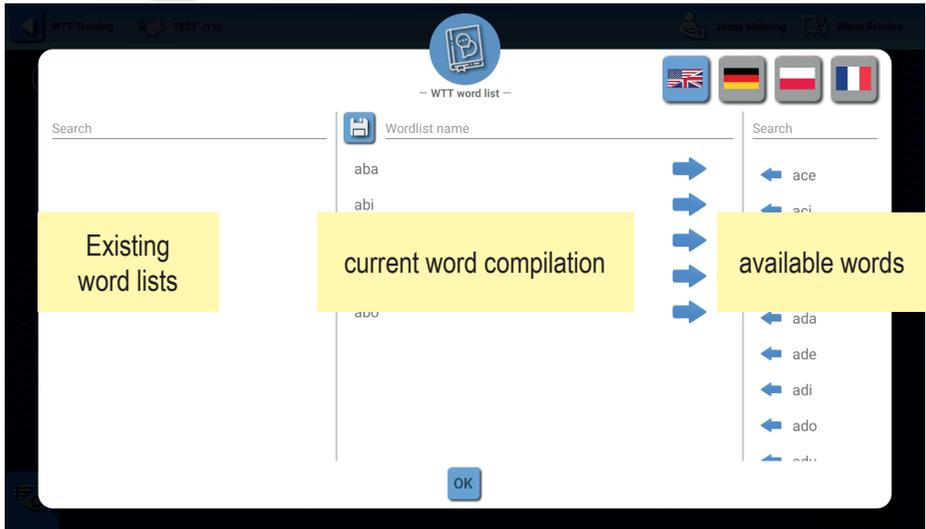
2. In the country flags, select the flag for whose language you would like to create a word list.
3. In the right-hand column, tap the word you want to add to the new list. The word is moved to the middle column. You can select up to 16 words.

Tip: If you touch the area in the right-hand column with your finger and swipe downwards, you will be taken to words that are later entered in this alphabetical list.

Tip: You can enter letters that the word should contain in the Search field above the words. For example, if you want to train with words that contain the letter G, tap in the **Search** field and enter G using the keyboard that appears. Only words containing a will be displayed. You can also search for whole VKV words, e.g. OKA.

4. If you want to remove a selected word from the list, tap it (middle column).

▮   afa   ➡ | ⬅ oqu   ▮
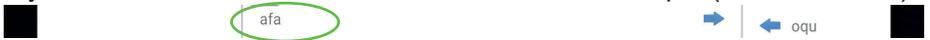
This will move it back to the right-hand column.

Tip: You can create lists with exactly those problem words and sounds with which a client had particular difficulties during the WTT test. .

5. Once you have compiled the list according to your wishes, tap on **Name of word list** in the top middle column. A keyboard will appear.
6. Give the list a name that you can use to recognize it. Suggestions:
   • the name of the client for whom it is intended - e.g. words for Jana
   • *words with AB + AK*
   • List the words contained: *e.g. EFI, EKI, AKI, AFI, IFO, IKO*
7. Tap on the disk 💾 . This saves the list and its name appears in the left-hand column.

Selecting a saved word list

1. In the left-hand column, tap the word list with which you want to start a training run. The name and content of the word list are displayed in the middle column.

   As a general rule the words displayed in the middle column are used during the training run. It does not matter whether they were saved in a word list, added to it or newly entered.

2. If you want to delete a word list again, tap on the button with the barrel 🗑 next to the entry in the left-hand column. The word list is deleted without a confirmation prompt and is no longer available for further training sessions. The words will of course remain in the list of all words and can be selected again.

Ending word list selection

1. Tap the button OK at the bottom of the field to close the window and return to the WTT training menu.

Modify training run

1. Tap the button. The **WTT settings** window opens.
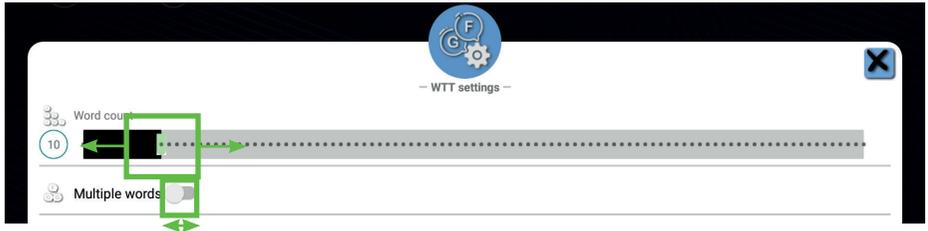
2. Tap the green slider on the black bar if you want to change the number of tasks during a training run. You can select up to 100 tasks.
   Note: When setting the number of words, bear in mind that the training is strenuous. Depending on the client's concentration span, even 25 tasks can be too many, so that the result is distorted.
3. Tap the button next to **Multiple words**.
   - If the thick dot is on the right and green ⬤, two of the words from the list will be offered randomly one after the other for each task during training.
   - If the button is on the left and gray, one word per task is offered during training.

Tip: Outside of the WTT settings menu, you can modify the training run in many ways. To do this, you can deliberately make the word output more difficult or simpler during training using all the AlphaTrainer settings:
   - Lateralized audio output
   - Mono / stereo conversion
   - Darkening the display (indirectly) with the LCD darkening glasses
   - Changing the lateral width
   - Consonant refinement (for simplification)
   - etc.

   You can find out how to set and use these options at the end of the chapter on the **AlphaTrainer** module (blue chapter).

Evaluate training run

At the end of a training run, an evaluation automatically appears as a result. This can be read as follows:

	Position	Meaning
Run with single words 	1	Total number of words offered - and the number of words correctly named in the first attempt
	2	Number of repetitions required to find the correct answer in the second or third attempt
	3	The training was carried out with these words.
Run with word pairs 	4	Correct: How often the word in question was recognized - regardless of whether this was on the first or after a repetition. Total: How often was the word in question given as a task during the training? Correct %: In what percentage of cases was the word in question recognized?
	5	The words in red were entered instead of the correct words ... on the first, second or third attempt.
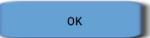
1. Tap the **OK** [OK], button to hide the evaluation. You can call it up again at any time in the **Statistics** module. To do this, follow the steps in the orange section.

Modul BrainAudiometer

With this module you test and train the so-called low-level functions, i.e. the very basic functions of central hearing ... and a comparable function of vision.

1. Select the client as **client 1** with whom you would like to carry out the test and/or training.
2. Have the client put on the headphones in the correct position, which are connected to the plugged into the **Client 1** output socket on the device.
3. Tap the **BrainAudiometer** module in the main menu. The selection menu opens.

In this module, you will deal with the following basic hearing (or seeing) skills:

	Processing Visual	**Visual order threshold**
	Processing	**Auditory order threshold**
	Direction	**Directional hearing**
	Pitch	**Pitch discrimination**
	Metronome	**Synchronous eye-hand coordination**
	Reaction	**Auditory-motor responsiveness**
	Sequence	**Sound pattern recognition**
	Duration	**Tone length recognition**

Even if the functions differ greatly from one another, they all have the same basic principle:

The client hears (or sees) stimuli and reacts to them.

Answer buttons in the form of arrows or circles with numbers are displayed on the tablet.

If the client enters a correct answer, the next subtask becomes more difficult. If, on the other hand, they enter an incorrect answer, they can attempt an easier sub-task. This applies to most functions with two exceptions, which are explained in the task description.

Application modes are available for each function:

	Standard test: The parameters used in a large norm data study are applied here. The reference values are based on the results
	Training run: Here, the button that is to be given is indicated with a red dot - with a click via headphones in the case of a visual cycle. This pre-sage logic is a proven method for reinforcing the link between vision and hearing.
	Consolidation run: A test similar to the standard test is carried out here - without prediction. However, for each exercise, the device adjusts the starting value to the client's previous results in order to match the client's level of performance.
	User-defined run: Various presettings are possible here. You can find out more about this later in this chapter under Settings.
	General settings: Here you can define the starting values for the runs in Training and Advanced modes. You can choose between the option that the values adapt to the performance level or are adapted by you.

Recommended procedure for the **BrainAudiometer** module:

First appointment	Standard test with all functions to determine the client's abilities.
From the second appointment	Training run and consolidation run always in combination in order to train the skills continuously. Work more on the functions that require training. These are age reference values that are significantly higher than the actual age.
When age references are reached or too difficult	For functions where the age reference has been reached: User-defined run to make the training more interesting and challenging. The intensity can be reduced for these functions.

Function Processing Visual

1. In the BrainAudiometer menu, tap on the button **Processing Visual**.
2. Tap on the mode you want to start – usually **standard test** or **training**. The run starts immediately after starting the mode.

Starting position:
    The client sees two red flashes on the tablet. One flash is on the left and one flash is on the right.
    The client should look at the white dot in the middle.
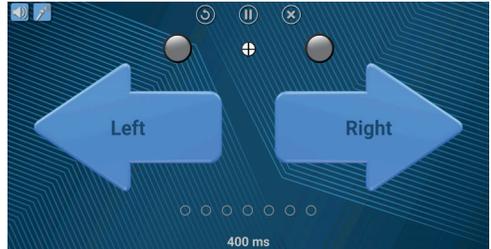
Task:
    The client should identify the first flash (whether left or right) and tap the corresponding arrow (left or right). The client has about 30 seconds to answer the standard question.

   • First flash on the **left**: Tap the **left** arrow.
   • First flash on the **right**: Tap the **right** arrow.

After the answer has been given:
   • If the answer was correct, a green tick appears at the bottom of the status display. The next task becomes more challenging.
   • If the answer was incorrect, a red cross appears in the status display. The next task will be less demanding.

Cancellation criteria:
   • If three errors are entered within seven tasks, the run is automatically terminated.
   • If a run takes longer than three minutes.
   • If an upper or lower value limit is reached.

Note: In **Training** mode, a click can be heard in the headphones on the correct side. This indicates that the arrow on the respective side must be tapped.

At the end of each run, an evaluation of the tasks is displayed. More on this at the end of this chapter.

Function Processing

Processing

1. In the BrainAudiometer menu, tap on the button **Processing**.
2. Tap on the mode you want to start – usually **standard test or training**. The run starts immediately after starting the mode.

Starting position:
   The client hears two clicks in the headphones. One click is heard on the left and one flash is heard on the right.
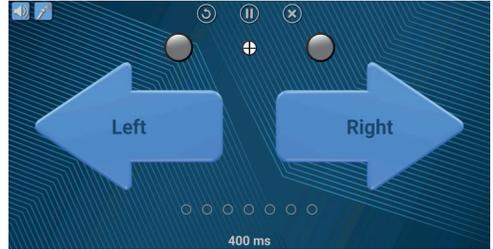
Task:
   The client should identify the first click (whether left or right) and tap the corresponding arrow (left or right). The client has about 30 seconds to respond in the standard way.

   • First click on the **left**: Tap the **left** arrow.
   • First click on the **right**: Tap the **right** arrow.

After the answer has been given:
   • If the answer was correct, a green tick ⊘ appears at the bottom of the status display. The next task becomes more challenging.
   • If the answer was incorrect, a red cross ⊗ appears in the status display. The next task will be less demanding.

Cancellation criteria:
   • If three errors are entered within seven tasks, the run is automatically terminated.
   • If a run takes longer than three minutes.
   • If an upper or lower value limit is reached.

Note: In **Training** mode, you will see a flash of light above the arrow on the correct side. This indicates that the arrow on the respective side must be tapped.

At the end of each run, an evaluation of the tasks is displayed. More on this at the end of this chapter.

Function Direction

1. In the BrainAudiometer menu, tap on the button **Direction**.
2. Tap on the mode you want to start – usually **standard test** or **training**. The run starts immediately after starting the mode.

Starting position:
    The client hears a click in the headphones, which can be heard to the left or right of the center of the head.
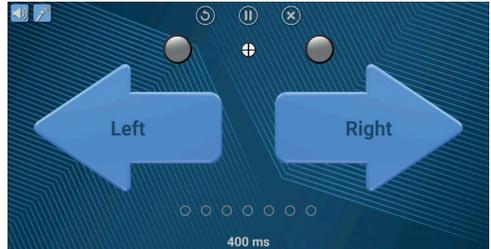
Task:
    The client should identify the position of the click (whether to the left or right of the center of the head) and tap the corresponding arrow (left or right). The client has about 30 seconds to answer the standard question.

- Click **more to the left** of the center of the head: Tap the **left** arrow.
- Click **more to the right** of the center of the head: Tap the **right** arrow.

After the answer has been given:
- If the answer was correct, a green tick appears at the bottom of the status display. The next task becomes more challenging.
- If the answer was incorrect, a red cross appears in the status display. The next task will be less demanding.

Cancellation criteria:
- If three errors are entered within seven tasks, the run is automatically terminated.
- If a run takes longer than three minutes.
- If an upper or lower value limit is reached.

Note: In **Training** mode, a flash of light can be seen above the arrow on the correct side. This indicates that the arrow on the respective side must be tapped.

At the end of each run, an evaluation of the tasks is displayed. More on this at the end of this chapter.

Function Pitch

1. In the BrainAudiometer menu, tap on the button **Pitch**.
2. Tap on the mode you want to start – usually **standard test** or **training**. The run starts immediately after starting the mode.

Starting position:
> The client hears two tones of different pitches in the headphones.

Task:
> The client should determine the sequence and name whether the lower tone was heard first or second. The client should then tap the corresponding number button (1 or 2).

> **Important:** The client has about 30 seconds to answer.

> • Low tone **first**: Tap number button **1**.
> • Low tone last: Tap number button **2**. (= high tone first)

After the answer has been given:
> • If the answer was correct, a green tick appears at the bottom of the status display. The next task becomes more challenging.
> • If the answer was incorrect, a red cross appears in the status display. The next task will be less demanding.

Cancellation criteria:
> • If three errors are entered within seven tasks, the run is automatically terminated.
> • If a run takes longer than three minutes.
> • If an upper or lower value limit is reached.

Note: In **Training** mode, a flash of light can be seen above the circle on the correct side. This indicates that the arrow on the respective side must be tapped.

At the end of each run, an evaluation of the tasks is displayed. More on this at the end of this chapter.

Function Metronome

1. In the BrainAudiometer menu, tap on the button **Metronom**.
2. Tap on the mode you want to start – usually **standard test** or **training**. The run starts immediately after starting the mode.

Starting position:
   The client hears a constant sequence of clicks to the left and right in the headphones.
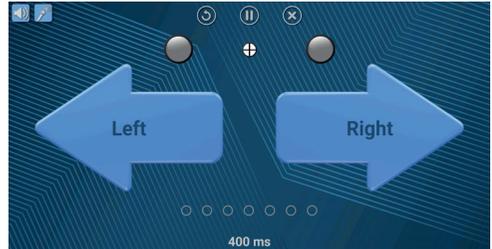
Task:
   The client should tap the sequence of clicks on the left and right arrows (each on the correct side) as synchronously as possible.

   Important: In this function, the client has no time to think about the answer. They have to type as synchronously as possible. If they get out of time, they can stop for a moment, listen to the beat again and start typing again.

   • Click on the **left-hand** side: Tap the **left** arrow at the same time.
   • Click on the **right-hand** side: Tap the **right** arrow at the same time.

After the answer has been given:
   • If the client hits the bar sequence, the bar becomes faster. This makes the run more demanding. A green tick appears in the status display.
   • If the client does not hit the bar sequence synchronously enough or taps the button on the opposite side, the bar remains constant and does not change. A red cross appears in the status display.

Cancellation criteria:
   • If a run takes longer than three minutes.
   • Wird die untere Wertgrenze erreicht.

Note: In **Training** mode, a flash of light can be seen above the arrow on the correct side. This indicates that the arrow on the respective side must be tapped.

At the end of each run, an evaluation of the tasks is displayed. More on this at the end of this chapter.

Function Reaktion

1. In the BrainAudiometer menu, tap on the button **Reaktion**.
2. Tap on the mode you want to start – usually **standard test** or **training**. The run starts immediately after starting the mode.

Starting position:
    The client hears two tones of different pitches from different directions in the headphones.
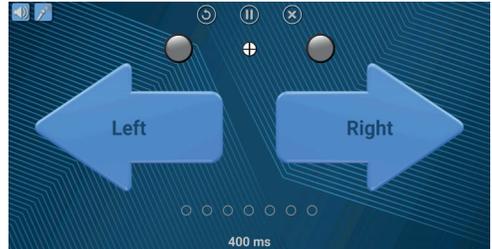
Task:
    The client should identify the order and side of the tones as quickly as possible - and pay particular attention to the lower tone. If the lower tone can be heard on the left or right. The arrow should be tapped accordingly.

    Important: In this function, the client has no time to think about the answer. He must tap as quickly as possible, as the response time is measured.

- Lower tone **on the left**: Tap the **left** arrow as quickly as possible.
- Lower tone **on the right**: Tap the **right** arrow as quickly as possible.

After the answer has been given:
- If the answer was correct, a green tick ✅ appears at the bottom of the status display.
- If the answer was incorrect, a red cross ❌. appears in the status display. Regardless of this, the tasks remain at the same level

Cancellation criteria:
- The run always takes a preset time.

Note: In **Training** mode, a flash of light can be seen above the arrow on the correct side. This indicates that the arrow on the respective side must be tapped.

At the end of each run, an evaluation of the tasks is displayed. More on this at the end of this chapter.

Function Sequenz

1. In the BrainAudiometer menu, tap on the button **Sequenz**.
2. Tap on the mode you want to start – usually **standard test** or **training**. The run starts immediately after starting the mode.

Starting position:

The client hears three tones in the headphones, one of which differs from the others: it is either higher or lower than the other two tones.

Task:

The client should determine the sequence and name whether the deviating sound was heard in the first, second or third position. The client should then tap the corresponding number button (1 or 2 or 3)

Important: The client has about 30 seconds to answer.

- Deviating tone **first**: Tap number **button 1**.
- Different tone **in the middle**: Tap number **button 2**.
- Deviating tone **last**: Tap number **button 3**.

After the answer has been given:
- If the answer was correct, a green tick appears at the bottom of the status display. The next task becomes more challenging.
- If the answer was incorrect, a red cross appears in the status display. The next task will be less demanding.

Cancellation criteria:
- If three errors are entered within seven tasks, the run is automatically terminated.
- If a run takes longer than three minutes.
- If an upper or lower value limit is reached.

Note: In **Training** mode, a flash of light can be seen above the circle on the correct side. This indicates that the arrow on the respective side must be tapped.

At the end of each run, an evaluation of the tasks is displayed. More on this at the end of this chapter.

Function Duration

1. In the BrainAudiometer menu, tap on the button **Duration**.
2. Tap on the mode you want to start – usually **standard test** or **training**.
   The run starts immediately after starting the mode.

Starting position:
   The client hears three tones in the headphones, one of which is longer than the other two.

Task:
   The client should determine the sequence and name whether the longer tone was heard first, second or third. The client should then tap the corresponding number button (1 or 2 or 3).

   Important: The client has about 30 seconds to answer.

   • Longer tone **first**: Tap number **button 1.**
   • Longer tone **in the middle**: Tap number **button 2.**
   • Longer tone **last**: Tap number **button 3.**
   Tip: If the client is sure that all tones were the same length, even for simple tasks, the longer tone was probably the last one.

After the answer has been given:
   • If the answer was correct, a green tick appears at the bottom of the status display. The next task becomes more challenging.
   • If the answer was incorrect, a red cross appears in the status display. The next task will be less demanding.

Cancellation criteria:
   • If three errors are entered within seven tasks, the run is automatically terminated.
   • If a run takes longer than three minutes.
   • If an upper or lower value limit is reached.

Note: In **Training** mode, a flash of light can be seen above the circle on the correct side. This indicates that the arrow on the respective side must be tapped.

At the end of each run, an evaluation of the tasks is displayed. More on this at the end of this chapter.

Evaluation

At the end of a run, an evaluation of the tasks is displayed. This contains statistical and graphical information on the run just completed:

In detail, the data can be interpreted as follows:

Position	Meaning
1	Parameters of the run: • Best value: the best value achieved before the end of the run • Start value: With which value was the run started? • Final value: last value (if identical to best value, the end of the game was not due to too many errors) • Highest value: If the highest value is identical to the start value, no mistakes were made at the beginning. • Lowest value: What was the lowest value overall? • Average response time: How long did the answers take? How quickly was the client clear about the answer?
2	The percentage rank indicates how the best value is to be classified. A high value indicates that the client has mastered the test well. The following targets apply to the **standard test** and the enhancement test: 1. A score of 50 should be aimed for in the short term. Until then, the client should train every day if possible. 2. In the medium and long term, the goal should be a value of 80. Then the function can be reduced to once a week for maintenance training. Results from training runs are naturally much better, as the answer to be given is displayed. The percentile ranks and ages achieved here should therefore not be used as a benchmark for training frequency.

3	The age achieved is a comparative figure for data collection studies. It indicates how old people were who achieved the result.
	The following targets apply to the **standard test** and the **enhancement run**:
	• If the achieved age is above the client's current age, there is a training opportunity to improve the values.
	• If the age achieved is below the client's current age, this hearing function is already at a good level.
	• If the specified value is 20 years, the client has achieved excellent values. Maintenance training could be used here. Daily training is not necessary .
	Auch hier sollte den Ergebnissen beim Trainingslauf nicht zu große Bedeutung zugesprochen werden, weil die Antwort vorgesagt wurde.
4	The graphical representation is a protocol of the run. All answers are displayed here - also in comparison to two important target values:
	Red line: this is the line that indicates the age-specific benchmark of percentile rank 80. This is the value that should be aimed for in the medium and long term.
	Green line: This is the ideal value that should be aimed for in the long term as a very good value. If the client is at this level, the training can be completed with this function. Occasional assessments are recommended.
5	Here you will find a percentage overview of the individual tasks. The number of all tasks - and how many of them were answered correctly. These are also broken down into left and right distribution.

1. Tap the **OK** [OK] button to hide the evaluation. You can call it up again at any time in the **Statistics** module.
2. Continue with another mode or the next exercise.

General Settings and Special Settings

In this chapter, you will learn how to customize the runs.

General settings

Here you can change the start values of the runs in **training** and **enhancement** modes.
1. Tap on the option for training runs or in-depth runs. If you want to specify your own start value, tap Custom and move the bar.
2. Under Level, tap on Custom and tap the desired level.
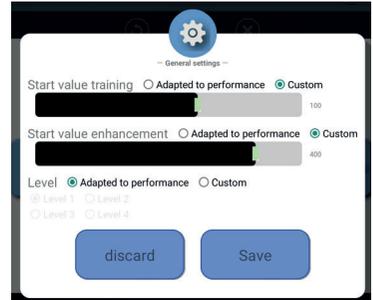
3. Tap the Save button to accept your selection.
High levels can only be selected if they are within the client's realistic range and the corresponding values have already been reached.
The higher the level number, the more demanding the requirements for the client.

Special settings

You can adapt the runs in **Custom mode** in particular to the client's abilities and requirements.
For example, the duration of a run can be extended to help clients with very long thinking times.
You can also continue to support clients who have already trained functions to a good level with background noises. This will prepare them to use heir newly acquired listening skills even better in a noisy environment.

Procedure:

1. On the mode selection page of a function, tap the **Settings** 🔧 button.
2. The editing window opens:

   You will find explanations in the following table:

3. Change the settings to suit the client's requirements and needs. The following table shows what you can change with which settings. The changes have an effect on sessions that you start in the **Custom module.**

| Option	Meaning
Start value	With which first value should the run be started? O **Adjusted to performance:** The results of previous runs are considered here and changed accordingly. O **User-defined:** You can define your own start value here.
Duration	What is the maximum duration of a run before it ends automatically? Long times can help clients who have to listen for a long time.
Number of tasks	How many individual tasks should there be during a session? More or fewer tasks can sometimes lead to more realistic results. By default, most functions have 40 tasks in one run.
max.	At how many errors in a sequence of 7 tasks is the run aborted?
Backward steps	How many steps is the client set back after an error in order to have to solve a lesser challenge in the next task?
Background	Do you want a background noise to accompany the exercise? This increases the demands on the client, but the benefits are also greater.
Help	Here you decide whether the red light flash should be displayed as support in the user-defined run (for the Processing Visual function: the click on the side to be pressed).
Reaction	How long should the client have time to enter their answer before it is considered not given? Very slow clients can be supported here. However, the function can also be used as deliberate stress.
Repetition	Should it be possible to repeat a task during the session? This can be useful in the case of unforeseeable events, but can distort the result if tasks are repeated too often.

Module AlphaTrainer

This module is specially designed for reading and comprehension training. The basic principle is that speech, music and sounds always travel from one ear to the other. The client always hears himself on the opposite side to the trainer or the audio file. Both hemispheres of the brain are used and forced to communicate with each other. This trains the so-called brain beam, the connection between the cerebral hemispheres, in order to link all auditory and visual impressions well together.
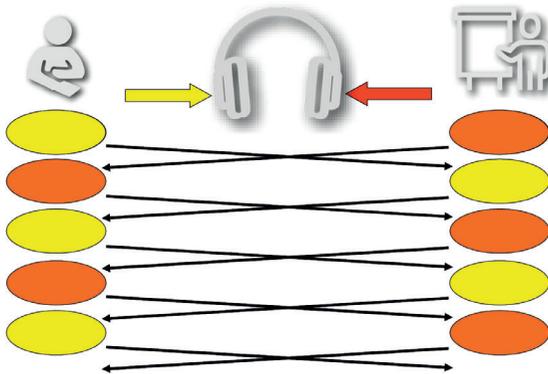
Lateral training, which is behind the AlphaTrainer, can use different audio files, the client's voice, the trainer's voice and also simply sounds and music. The training can also be carried out as group training with up to three people at the same time. Communication games, conversations, vocabulary learning and similar auditory impressions and actions are conceivable. There are no limits to the creativity of the application.

Headsets and LCD blackout glasses are required for this training. In addition, if you want to use your own practice material, an external audio source, e.g. a CD player or a computer from which audio files can be played.

Working with the AlphaTrainer

You can carry out lateral training **with** or **without** audio files.
You will learn how to integrate audio files during training later in this chapter **Integrating audio files**. It then forms the core of the lateral training.

Lateral training without audio files

The following are particularly suitable for training WITHOUT audio files
• Speech and singing games
• Pronunciation exercises
• Conversations, as lateralized listening also has a training effect.
• Reading normal texts that are not available as audio files
• Writing dictation
• Vocabulary learning

Procedure:
1. Select the client(s) for training in the main menu. Assign the desired head-sets to them.
2. Tap the **AlphaTrainer** button in the main menu. The program window for lateral training opens.
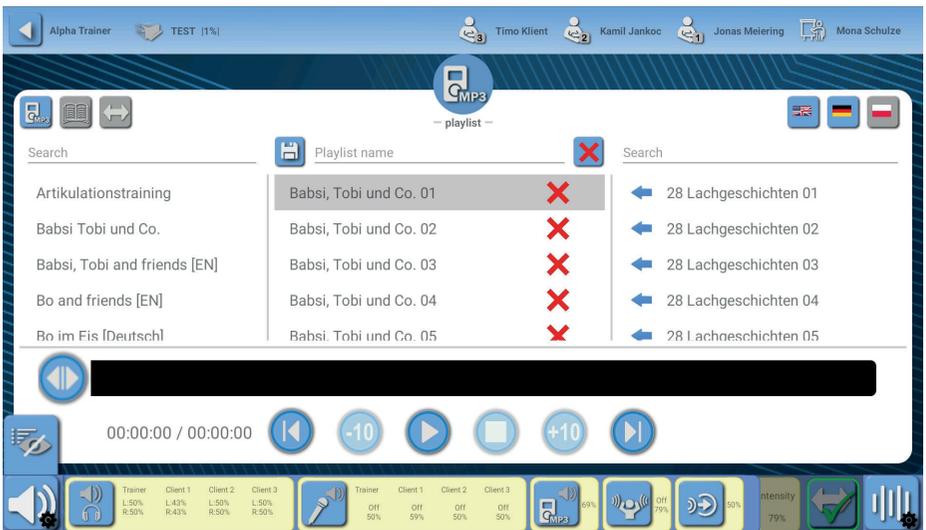
This means that you have already started lateralization, i.e. walking.

3. If you have not already done so, put the trainer headset on the correct side yourself.
4. Have the client(s) put on the client headset on the correct side. Make sure that each client puts on the exact headset that you assigned to them when selecting the client. You can recognize which headset this is by the client icons in the top line: In this case, Jana Kindermann should put on the headset that is plugged into the socket for client 1.
5. Tap on the grey lateralization arrow ⟷ at the top of the program window.
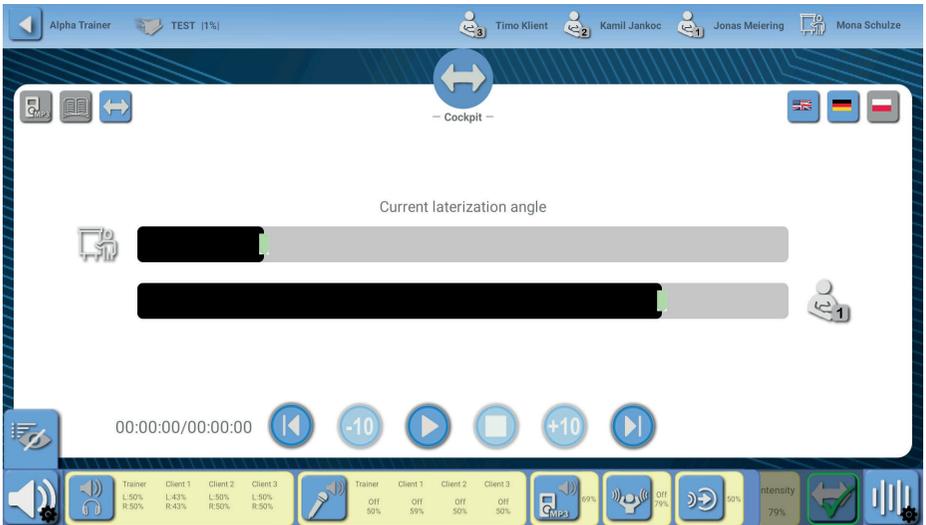
- If it is already blue, you will see the moving lateral bars. Then you are already in the correct window.
- You can now speak to clients, dictate texts, ... - exactly what you want to use lateral training for without audio files.
- You can learn how to change the settings for volume, lateralization speed and parameters in the subchapter **Lateral training settings**.

Integrating audio files

Have you assigned the respective headset to the client(s) for lateral training and started the **AlphaTrainer** module? You should now see the playlist selection window. If this is not the case, tap on the gray button 🔘 to get to the selection window for audio files.

| created playlists | currently selected audio files | available audio files |
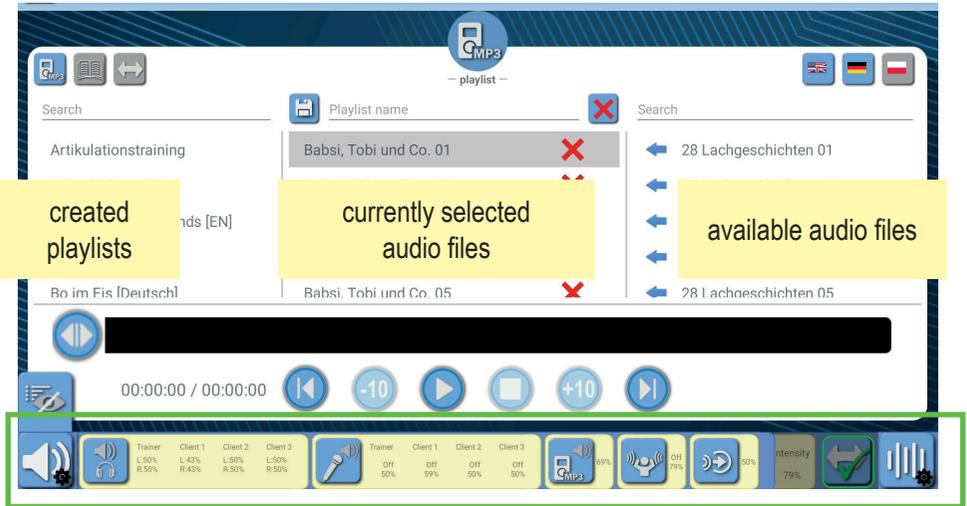
Note: The setting options below are an important aspect of lateral training. You will learn about their meaning and use later in this chapter **Settings for lateral training**.

Adopting previously created playlists (including preset playlists)

Some of the exercise material in your *Brain*Central has already been compiled into playlists. You can adopt these as follows:

1. In the left-hand column, tap on the playlist you want to train with. The entries in the playlist will appear in the middle column.
   As a general rule, the audio files displayed in the middle column are used for training. It does not matter whether they have been saved as a playlist, added to an existing list or newly compiled.
2. Tap on the file you want to start the training with. The file starts and can be heard immediately.

Selecting audio files and creating playlists

In the right-hand column you will find all the audio files stored on the device. You can compile and use these for training. You can also save them in playlists so that you can always use them in the same combination.

1. In the right-hand column, tap the audio files you want to add to the new list one after the other. The audio files are moved directly to the middle column. You can move almost any number of files.

> **Tip:** If you touch the area in the right-hand column with your finger and swipe up or down, you will be taken to audio files that are entered earlier or later in the alphabetical list.
> **Tip:** In the **Search** field above the files, you can enter abbreviations that are contained in the titles of the audio files. If you would like to train with a client using the meaningless Gi-em-off texts, for example, enter the search field **and**. You will then only be offered files that contain the letter combination **and**.

2. In the middle column, tap the arrow behind a selected audio file if you want to remove it from the playlist.

This will move it back to the right-hand column.

3. Once you have compiled the list according to your wishes, tap **Playlist name** in the middle column at the top. A keyboard will appear.

4. Give the list a name with which you can recognize the list.
    Suggestions:
    •   Be the name of the client for whom it is intended - e.g. texts for Jana
    •   *Hifino stories*

5. Tap on the disk 💾 . This saves the playlist and its name appears in the left-hand column.

Select saved playlists

1. In the left-hand column, tap the playlist that you would like to use in the up-coming training session. The name and content of the playlist are displayed in the middle column.

   As a general rule, the audio files displayed in the middle column will be used during training. It does not matter whether they have been saved as a playlist, added to an existing list or newly compiled.

Deleting files from saved playlists ...

You can remove audio files from a saved playlist if you no longer want them to be included. For example, if you have created a separate list for an individual client but no longer want to offer a particular text.

2. In the left-hand column, tap on the playlist from which you want to delete audio files. The entries appear in the middle column.
3. Tap the audio file you want to delete with the red cross. If you want to delete several files, repeat this step until the playlist meets your requirements.

   Note: If you would like to add other audio files instead, you can tap the corresponding audio files in the right-hand column. This will add them to the playlist.

4. Tap on disk 💾. This will overwrite the playlist with the updated content.

Deleting a saved playlist ...

1. If you want to delete a playlist, tap the button with the barrel 🗑 neben dem Eintrag in der linken Spalte.

   Note: Without a confirmation prompt, the playlist will be deleted and will no longer be available for further training sessions. The audio files remain saved on the device (right-hand column) and can be selected for training.

Starting lateral training with audio files

If you have selected audio files, you can now start lateral training with audio files. It is important that you and the client(s) wear a headset. If the visual sensory channel is also to be trained, the client should also wear the LCD darkening glasses.

Note: If you are carrying out group training, the glasses will be passed between the clients as required.

You can control lateral training with audio files using the buttons on the playback bar, which you will find in the same place in all AlphaTrainer windows:

Note: Depending on which functions are currently available, individual buttons are solid blue (usable) and others are light blue (currently not usable)

1. Tap the button ▶. In the headphones, you will hear the audio file that is highlighted in gray in the selection window (middle column).

    The following table shows you how you can control the audio files with the buttons:

Button	Function
	Manually rewind the currently playing file to a desired position - forward and backward possible
	Start previous file
-10	Rewind the currently playing file by 10 seconds to repeat short sections.
	Start / continue currently selected file (alternating with) Pause / interrupt currently playing file
	Cancel currently playing file
+10	Fast-forward the currently playing file by 10 seconds
	Start next file (e.g. to skip or at the end of a file you are listening to)

2. Tap the relevant button according to your intention. This immediately triggers the intended function.

Perform lateral training with your own audio files

With AlphaTrainer, you can also use your own audio files that are not stored in the AlphaTrainer database.
You can use files as additional practice files for reading and comprehension training - for example audio books, podcasts on the Internet, music or even texts you have recorded yourself. The client's *current favorite audiobook* or favorite music can certainly encourage motivation to actively participate in the training. You can also use files as additional background noise to accompany existing audio files.
You feed in the files from an external audio source. For example, you can use an MP3 player, CD player, smartphone, computer, ... use.

Important: The audio files must be able to be played from the external audio source itself. Audio files stored on normal USB sticks are not suitable for this.

Note: You cannot control the audio files with the play bar. The buttons for start, pause, fast forward and rewind etc. therefore have no function. If they can be pressed, they refer to the audio files clicked on in the MP3 menu , which are then played.

Note: Existing text material cannot be fed into and displayed in *Brain*Central. Therefore, use printed texts for the read-along exercises or display them on the computer.

Procedure:

1. Connect the external audio source to the *Brain*Central on the side of the device where you also connect the headsets. Socket on the far left)➔ . You will need an adapter cable for this. Depending on your external audio source, this may also be a combination of connecting elements.
    Further information can be found in the **Technical and maintenance** chapter at the back of these instructions.
2. Start the audio file on the external audio source.
3. Set the volume on the external audio source to a high level - for CD players and MP3 players, this is usually the maximum volume.
4. Tap the button for the external audio source in the volume menu:

    .
    A window with a sliding field opens. Here you can reduce the volume as required. To do this, tap on the black area in the bar to lower the level.

    Further information on changing, adjusting and tuning the volume can be found later in this chapter.

reduced in
Home Licence

Lateral training with integrated textbook

The texts for many of the audio files supplied with the device are also already stored in the device, so that you can choose to read along with the texts that are part of the lateral training either on the tablet or conventionally with the text material in the book/booklet.

The following scenarios are conceivable:
- The client reads along with the text on the tablet, you as the trainer read along with the text in the book/booklet.
- The client reads along in the book/booklet. You read along on the tablet and use it to control the file with the play list.
- The client and you as the trainer both read along on the tablet.
- The client and you both read along in the book/booklet.

Choose the method that is most comfortable for the client. Of course, you can switch as you wish, e.g. to get children used to reading on a tablet or to give them the haptic feel of books.

1. In the MP3 selection window , select the audio file you want to train with.
2. Tap on the textbook to switch to the **textbook window**. The textbook window opens and the text for the selected audio file is displayed, if it is available.
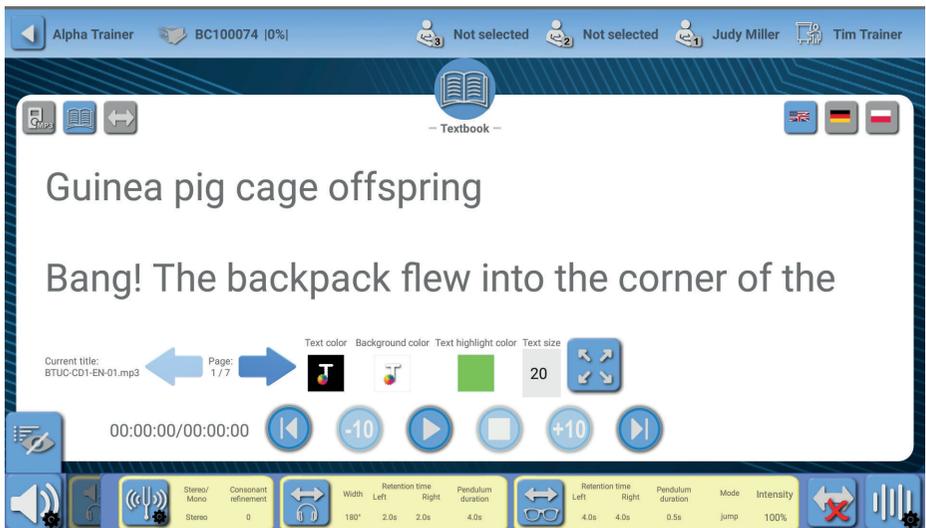
The client can now read along with the text.

Note: In the first phase of lateral training, the client should read along the text silently and with the exact syllable, moving their finger under the text. This is also possible on the tablet, as the surface of the text cannot be tapped.

3. You can change the display of the text with the following buttons and adapt it to the client's requirements.

Button	Function
Page: 1 of 3	Scroll text forwards and backwards
T	Text color
T	Background color
	Text for the syllable just spoken (highlighting) (not yet implemented for all texts)
20	Text size
	Full screen display of the text (can be closed again with ✖ at the top right)

Tip: Has the client been tested with the Cerium color test and found that certain color contrasts are advantageous when reading and should preferably be read with color foils? In this case - and also for special color requests for motivation - the text color and background color can be adjusted.

If you want to change the color

1. Tap the corresponding field.
2. A color circle appears.
3. In the color circle, tap the color you want the text, background or text highlighting to have.
4. Also move the dot in the bar to define the brightness of the color.
5. Tap OK if you want to apply the color.

ColorPicker Dialog

CANCEL   OK
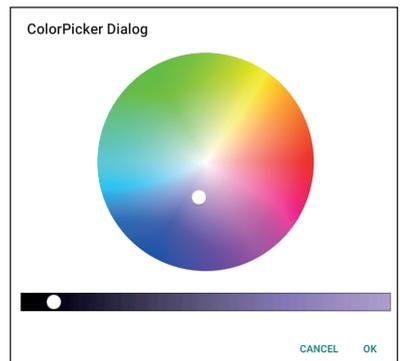
Settings for lateral training

You can change the parameters for lateral training using a variety of settings. These are, for example
- Dwell and transfer time in hearing
- Dwell and transfer time in vision and change behavior
- Volume of the headphones and audio files
- Noise - presence and intensity
- Switching between mono and stereo
- Lateral width

and much more.

The explanation of which parameter can be changed and how is integrated in the *Brain*Central app, so please refer to this information on the tablet. Here you will find an overview of the individual main functions.

The options for making changes can be found in the bottom line of the settings menu in all lateral windows.
If the settings menu is not visible, tap the [Show] button at the bottom left. The menu then appears and you can make changes or view the currently set values.

The menu is divided into two parts. Both parts overlap so that only one is visible at a time. However, you can easily switch between the displays:

- Tap [icon] to display the **volume menu** in full.

- Tap [icon] to display the **lateral menu** in full.

To access the other menu, tap the corresponding button on the far left (for volume) or right (for lateral settings).

Volume menu

The yellow fields show the current volume values. You can change these as required.

1. Tap the button for which you want to change the settings.

Button	Meaning
	Headphone volume - for trainer and each client separately. 👓 This allows you to change the headphone volumes separately.
	Microphone volume - for trainer and each client separately. You can also mute the microphones completely! stumm schalten ●. For example, for client groups, if a client is disruptive or if you want everyone to read along quietly but only one person should be heard.
	Volume of the recorded audio files.
	Type and volume of the background noise.
	Volume of the external audio source. (e.g. CD player, smartphone, MP3 player, computer, ...)

2. Change the parameters according to the instructions on the screen. Put on the headphones yourself so that you can check that nothing is too loud and therefore unpleasant to hear.

> **Note:** When adjusting the microphone volume, make sure that the play-back does not clatter or overdrive. This is perceived as unpleasant and disturbing.

Lateral menu

You can see the current volume values in the yellow fields. You can change these as required.

1. Tap the button for which you want to change the settings.

Button	Meaning
	Stereo mono: For standard CDs, **mono** must be set so that the lateralization is audible.
	Enhancement: Special amplification from high to highest frequencies.
	Lateralization settings in the auditory range (hearing):
	Lateral width: Setting the angle between which the auditory signals lateralize
	Dwell time ... on both sides (can be set separately and in combination)
	Audio commute time: Transfer time between the two sides
	Lateralization settings in the visual range (vision):
	Video commute time: fade time between the two sides
	Dwell time ... on both sides (can be set separately and in combination)
	Intensity: intensity of the darkening of the lenses
	Video lateral type: Type of dimming of the lenses
	All settings refer to the same pair of glasses. Individual storage per client in a group is not possible.
	Stop or continue lateralization:
	= Audio signals are lateralized
	= Audio signals are stopped - no lateralization
	Stop e.g. during WTT training so that the VKV words always come from one direction. Or if you want to read a text together with the client, i.e. they should hear your voice at the same time as theirs, but they should not be lateralized.

2. Change the parameters according to the instructions on the screen. Put on the headphones yourself so that you can check that nothing is too loud and therefore unpleasant to hear.

Overview of the training phases

– Especially for learning support / reading and spelling support –

In the following table you will find a description of how you can gradually intro-duce a client to lateral training without them feeling overwhelmed. The phases should be carried out quickly and at an appropriate pace in order to achieve the optimum training phase - also with the targeted use of the special glasses.

Nr.	Description	Technique
1	In the first phase, the exercise texts are heard as audio files in a lateralized form only. The client should adjust to this new auditory impression.	• Audio files • Headset
2	In the second phase, the previously heard exercise texts are read out loud. In this way, the client now hears his own voice or that of the person reading in his place, also lateralized.	• Headset
3	In the third phase, the client hears the familiar exercise texts from phases 1 and 2 as audio files and speaks into the microphone as simultaneously (synchronously) as possible • If possible, the client should read along with the audio file and take their spoken text from the text booklet. • If they are not able to do this straight away, they can listen to the CD speaker's voice as an intermediate step and repeat it - slightly delayed. If the pronunciation is very unclean, this could indicate insufficient understanding of critical consonants. It is the-refore advisable to support consonant refinement and WTT training for a short time.	• Audio files • Headset
4	In the fourth phase, the client hears high-frequency filte-red sound information in a special way - also lateralized, of course. The audio files **Hifino audio files 2** with the Hifino stories are available for this purpose.	• Audio file Hifino 2 • Headset

5	In the fifth phase, the client hears the high-tone filtered sound information and speaks the text into the microphone at the same time (synchronously). The structure of this phase corresponds to phase three, with the difference that the high-frequency filtered texts are heard here.	• Audio file Hifino 2 • Headset
6	In the sixth phase, the client begins to read the exercise texts through the special glasses connected to the *Brain*Central. If the client wears glasses as a visual aid, these should continue to be worn for training; the special glasses are worn over the visual aid. It must be ensured that the client reads the reading text through the special glasses at an appropriate rate of dimming. Depending on the client's abilities, this reading can initially be done quietly or immediately with the microphone.	• Shutter glasses • Headset
7	Finally, the optimum training phase is reached: • The client listens to the story in the headset. • He follows the text in the text booklet through the special glasses. • In addition, he reads the text aloud into the microphone, the channel of which can be heard in the opposite direction (on the other side of the headphones) to the CD information. In this way, eyes and ears are equally addressed in a constant alternation and the central auditory and visual processing is stimulated to an intensified and more precise exchange of information.	• Audio files • Headset • Shutter glasses

Statistics modules

In this chapter, you will learn how to view the evaluations that were created in the **WTT Test**, **WTT Training** and **BrainAudiometer** modules.

1. To do this, select the desired client in the main menu using the **Client 1** button.

Note: You can view the evaluations of the client who is currently assigned to **Client 1**. If you want to view the evaluations for another client, assign this other client to the **Client 1** item in the main menu.

Then tap the **Statistics** module in the main menu. The statistics window for this client opens. All the results saved for this client are collected there. The first window that is displayed when you open the statistics is the evaluation for the **BrainAudiometer** module.

	number of Tasks	Average	last	Best
Processing Visual	1	122 ms	28 ms	30 ms
Processing	1	54 ms	5 ms	5 ms
Direction	1	75 µs	10 µs	10 µs
Pitch	1	27 %	1 %	2 %
Metronome	1	171 ms	100 ms	101 ms
Reaction	1	962 ms	843 ms	721 ms
Sequence	1	100 ms	10 ms	10 ms
Duration	1	89 ms	18 ms	16 ms

Results from the BrainAudiometer module (low-level functions)

1. In the list, tap on the mode for which you would like to view the results.

The list gives you information, broken down by function, on the number of runs performed in this mode, the average values during the runs and the final results of the last and best run.

2. Tap one of the functions to view more detailed information about the progress of all runs in this mode.

An overview of all runs performed in this mode opens.
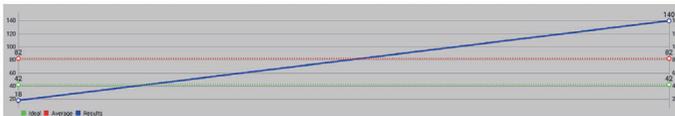
- The **blue** line shows the development of the final values.
- The **red** line shows the reference value - the percentile rank value 80.
- The **green** line shows the ideal value, i.e. the value to aim for in the long term.

The dates on which a run was carried out in this mode are listed below it.

3. Tap on one of the entries if you want to see more about the history. The evaluation that was already displayed at the end of the relevant run will open. You learned how to read the evaluation at the end of the chapter on the **BrainAudiometer** module (red chapter). You can read it again there.

   Tip: If a session you are interested in is a long time in the past, you can use the 📅 button to go back to a longer time in the past or 📅 - if you have clicked far into the past - to go closer to the current date.

   The evaluation that was already displayed at the end of the relevant run opens. You learned how to read the evaluation at the end of the chapter on the **BrainAudiometer** module (red chapter). You can read it again there.
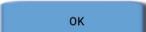
4. Tap **OK** [OK] at the bottom to close the evaluation of the single run.
5. Tap on the black cross ✖ at the top to close the global evaluation of the individual function.
   You are back in the statistics with the complete overview of the **BrainAudiometer** module in the selected mode.

Tip: If the graphic display is too small for you or if you are interested in a particular section of the graphic, you can enlarge the display. To do this, place two fingers on the display and move your fingers apart.
   • Drag your fingers up and down to enlarge the scale.
   • Drag your fingers to the left and right to enlarge the time display.
   You can then scroll within the graph to the points that are of particular interest to you.

Results from the WTT test module

1. Tap on the WTT test tab.

    This opens the evaluation sheet. This lists all the tests that have been carried out with this client.

2. Tap the test date for which you would like to view the results. You can use the 📅 button to go back further in time or 📆 - if you have clicked far into the past - to go back closer to the current date.

    You learned how to read the evaluation at the end of the chapter on the **WTT test** module (yellow chapter). You can read it again there.
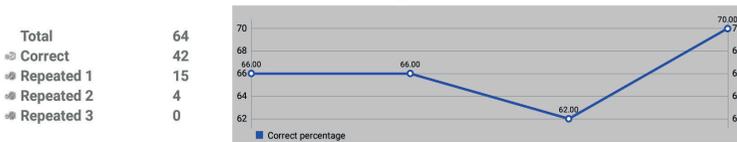
3. Tap on the black cross ✖ at the top to close the global evaluation of the individual function.
    You are back in the statistics with the complete overview of the **WTT test** module.

Results from the WTT training module

1. Tap on the WTT training tab.

This opens the evaluation sheet. This lists all the training sessions that were carried out with this client.

The percentages of the correct values are displayed and shown as a pro-gression diagram.
Below this is the list of individual training sessions.

2. Tap the training date for which you would like to view the results. You can use the 🗓 button to go back further in time or 🗓 - if you have clicked far into the past - to go back closer to the current date.

    You learned how to read the evaluation at the end of the chapter on the **WTT training** module (green chapter). You can read it again there.

3. Tap on the black cross ✖ at the top to close the global evaluation of the individual function.
    You are back in the statistics with the complete overview of the **WTT trai-ning** module.

Special menu

In this chapter, you will learn about the special menu of the *Brain*Central. It contains those functions that you rarely need during normal use - with the exception of the **Switch off** device function. Please be sure to carry this out using this menu.

Other functions are easier to access in the main menu. They are only summarized here once again.

1. In the main menu, tap the ☰ button in the top right-hand corner. A menu list opens.

    Note: If you open ☰ button in a module, only the info menu is included here.
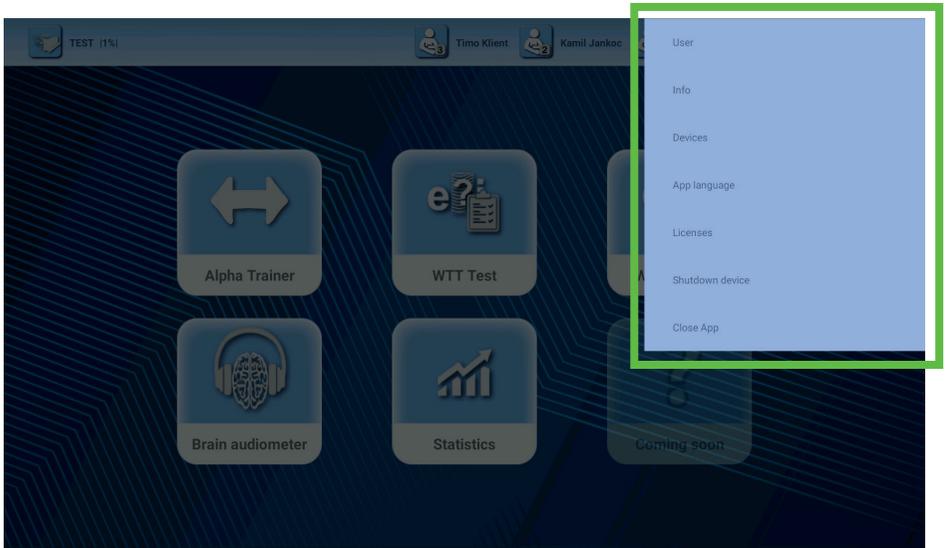
Tap on the function you want to execute.
This starts the function or opens a new window in which you can carry out self-explanatory steps.
If you have only opened this special menu out of interest, you can close it by tapping the screen outside the menu list.

Entry	Function	Alternative
User administration	Open the user administration here	or in the main menu.
Info	Information about the app and contact options for the manufacturer	
Devices	Open the device manager here to establish the connection between the tablet and device.	BC1 in the main menu
Language of the app	Change the menu language of the device.	
Licenses	Display - and with subsequent purchase - extension of licenses, e.g. WTT training, package with exercise material. You can find more information on license extensions under Technology and maintenance.	
Switch off device	This is where you switch off the *Brain*Central device.	**EXCEPTION:** Switch off the device using the power switch if the connection between the tablet and device is interrupted and cannot be established.
Close app	Switch off the *Brain*Central app securely here. Storage processes are still being completed.	Swipe the app - just like other apps. Data that has not been saved automatically may be lost.

⚠ **Attention!**   If there is no connection between the device and tablet, you can also press the power button for about 5 seconds. This also switches the device off. However, this causes an abrupt stop of all running functions. If data is being written to the internal memory, it may be damaged. This could also damage the electronics. Only switch the device on in this way in exceptional cases.

Normally use the **Switch off** device menu here in the special menu .

Technology and maintenance

In this chapter, you will find information about the technical data of the *Brain*Central device and the technical accessories. You will also learn how to clean, maintain, store and properly dispose of the device.

List of questions and troubleshooting

In diesem Kapitel erfahren Sie, wie Sie bei Schwierigkeiten mit dem *Brain*Central System vorgehen können.

Error	Suggested solution
The connection between the device and app is lost or cannot be established.	• Check whether the device is switched on. • Check whether the Bluetooth®* option on your end device is switched on.
As a trainer, I have forgotten my password.	Unfortunately, there is no way to reset or read out assigned passwords.
Bluetooth®** indicates that location recognition must be entered.	Location detection is required to connect the end device to the *Brain*Central device. Activate this in the settings of your end device.
I am in the AlphaTrainer module and cannot select a client.	This behavior is normal and intended. Tap the home button (top left) to return to the main menu. There you can click on a client in the top line to switch to the user administration. This procedure applies to all modules.
I cannot stop the CD in the connected CD player via the app.	This behavior is normal. CD contents are not files that are stored on the *Brain*Central. Please think of the connection to the CD player as a microphone that can only be used to record speech, but not to fast-forward or rewind.
NO modules can be selected in the main menu - not even statistics.	Presumably no person is assigned to **Client 1**. Therefore, select a client for **client 1**. This should solve the problem.
Evaluations of another client are displayed in the statistics.	Make sure that the client for whom you want to see the evaluation is assigned to the Client 1 item. You can only see the evaluation for this client.

---

*   Bluetooth® is a registered trademark of Bluetooth SIG, Inc.
**   Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

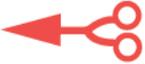|	
I cannot make some settings in AlphaTrainer. or I cannot open the Central Audiometer module.	You probably have the home license for AlphaTrainer. This is reduced. The instructions indicate which functions are restricted in the Home license. Or the BrainAudiometer module is not part of your individual license. You can purchase this at any time. If you have purchased the license, please contact *Medi-*TECH. You will find information on the extension in the **Technology and Maintenance** module.
Lateralization is not perceptible.	It is possible that lateralization from a previous session has stopped. Check whether a red cross covers the lateralization button in the yellow settings bar at the bottom of the AlphaTrainer window on the right. If this is the case, tap the button to restart lateralization.
Clicks on the central audiometer or words during the WTT test / training can only be heard on one side.	(1) The plug connection between the headphones and *Brain*Central may be faulty. Pull out the plugs and plug them in again. (2) The headphones or the socket may be defective. Use the headphones on one of the other sockets to check whether the problem is related to the socket or the headphones.
I hear noise or a babble of voices during the WTT training and when working with the BrainAudiometer.	During these two modules, all lateral and volume settings can be used deliberately. A noise is probably selected under the Noise volume setting and the on/off switch is set to . Change this setting in the yellow bar at the bottom.
The battery indicator for the *Brain*Central shows 0%, although the device has been charged.	Approximately five to ten charging cycles are required for a correct battery display because the app is trained on the device. The phenomenon should therefore soon be resolved.
The microphone does not work when I connect it directly to the *Brain*Central. However, it is switched on.	The microphone is not technically compatible with the *Brain*Central. You need two cables to bridge the technical hurdles. You can find out which cables these are and how to use them in the **Special connection variants** section in the **Technology and Maintenance** chapter.

Do further questions, errors or problems arise when working with the *Brain*Central (device and/or app)?
Please contact our technical customer support team.
We can then discuss further steps together.
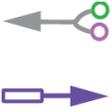
Special connection variants

This chapter explains how you can connect special accessory components or constellations to the *Brain*Central - usually with the help of adapter cables. The following table lists the contents of the *Brain*Central cable set BC-CBL1, which you will need for the most common variants.

Type id	Name	Parameter	Image	Quantity
B 02120	Y-cable	4 pin plug * to 2 x 3.5 mm stereo socket		2 pieces
8309	Y-cable	3.5 mm 4 pin plug -polige * socket to 2 x 3.5 mm plug		1 piece
8328	BC adapter cable for hand-held microphones	3.5 mm plug (stereo) to 3.5 mm socket (mono)		1 piece
8346	Distribution cable	stereo, 3.5 mm plug to 2 x 3.5 mm socket, 3 pin		1 piece
8389	Audio connection cable	3.5 mm plug to 3.5 mm plug (1.2 m)		2 pieces
8399	Extension cable	stereo, 3.5 mm socket to 3.5 mm plug, 5 m (can be omitted if cable length is sufficient!)		2 pieces

* CTIA standard

In the following table you will find the exact specification of the connections:

Requirement	Type id	Image	Socket(s)	Note
Standard headset MT-HS-801 (separate plugs)	B 02120			Kopfhörer-Stecker in grüne Buchse, Mikrofon-Stecker in rosa Buchse, Stecker des Kabels in *Brain*Central
MT-HS-70 x / 301 x stereo headphones + MT-DS 60 hand-held microphone	B 02120 + 8328			Headphone plug in green socket (B 02120), microphone plug in adapter cable (8328) and this in pink socket (B 02120)
Stereo headphones 3.5 mm jack plug	-	-		no additional accessories required.

Single hand-held microphone	B 02120 + 8328			Microphone plug in adapter cable (8328) and this in pink socket (B 02120)
external audio source (z. B. CD player, MP3 player, ...)	8389			Smartphone as external audio source? Depending on model, adapter plug may be required between cable and smartphone.
Computer, e.g. to use WWTT** lateralized	BC-CBL 1 (Set)	see below		Wiring instructions can be found in the following diagram

Using the WWTT

WWTT on a computer** or laptop with separate microphone/speaker socket	**WWTT** on a laptop** with combined microphone/ speaker socket	**WWTT** on a laptop** with combined microphone/ speaker socket and without MT-HS-801-II
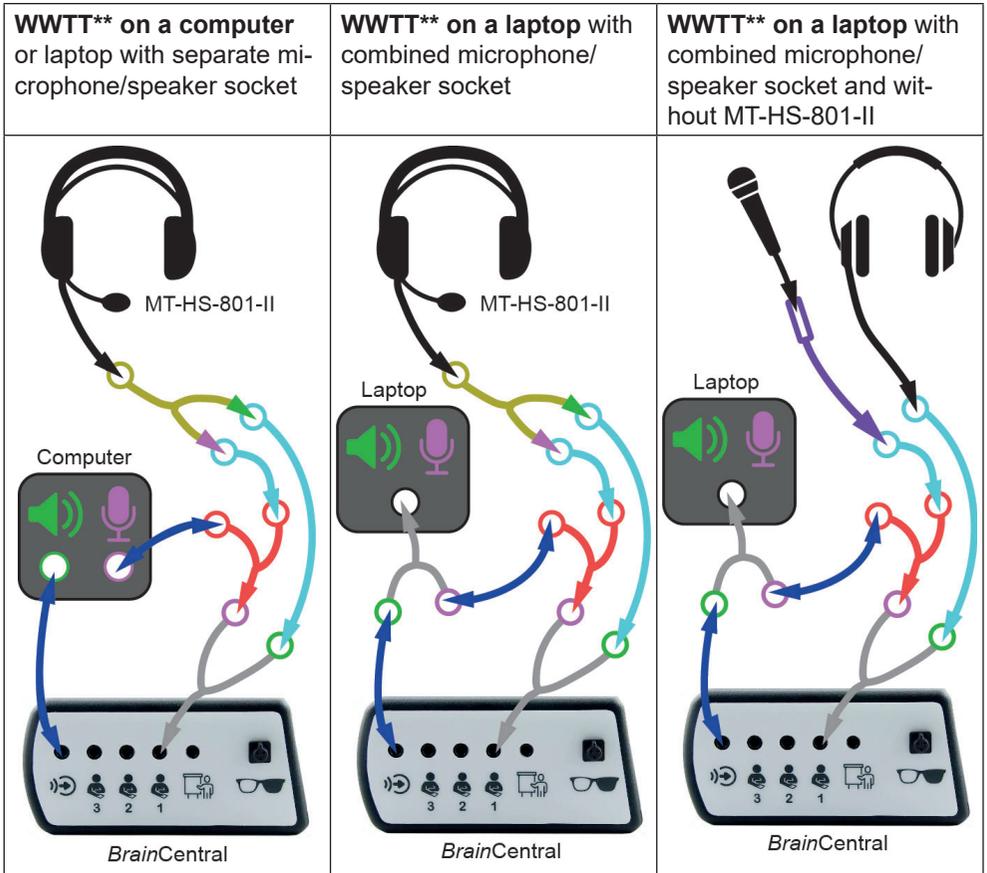
** WWTT = Wedemärker Wahrnehmungs-Trennschärfe-Test (Wedemärker perceptual discrimination test)

License extension

You have purchased your *Brain*Central system with a defined license package. If you would like to extend the scope of your license - for example, from a Home to a Professional version or to purchase additional BrainAudiometer functionality - proceed as follows:

1. Contact *Medi*TECH or the authorized dealer from whom you purchased the device.
2. Order the desired additional license. The following data is required:
   • Name of the purchaser
   • Serial number of the device. This can be found on the underside of the device.
   • Valid e-mail address to which the license file can be sent. Make sure that you can save the file to a USB stick in order to transfer it to the device.
3. Further instructions can then be found on the displays on the tablet.

Cleaning

The housing of the device and the headset(s) must be cleaned before a new application and after use with a lint-free cloth moistened with a commercially available disinfectant.

⚠	**Attention!**	When cleaning, be sure to observe the operating and safety instructions of the respective disinfectant manufacturer
⚠	**Attention!**	Never bring the device into contact with ultrasonic baths, running water or chemical cleaners such as thinner, alcohol, etc. This could damage or destroy the device. It could be damaged or destroyed.

The foam pads of the headset must be replaced or thoroughly cleaned after a change of user.
The replacement items can be obtained from specialist dealers or from *Medi*-TECH, whose contact address can be found on the front of these instructions for use.

Maintenance and storage

1. Make sure that only you as the trainer switch off the device and unplug the power adapter from the socket when it is connected to the mains.
2. Store the device at room temperature in a dry place.

If the device no longer works properly, please contact us.

| ⚠ | **Attention!** | Users are not permitted to rectify a defect in the appliance themselves. The appliance could be damaged. Independent „repair attempts" will invalidate *Medi*TECH's liability and warranty. |

Disposal

1. Switch off the device.

| ⚠ | **Attention!** | If you disconnect the device from the mains, switch it off first and then pull the plug of the power supply unit out of the socket. Never unplug the appliance first. |

2. Disconnect all accessories from the device.

| ☞ | **Note** | The *Brain*Central device, the tablet on which the *Brain*Central app is installed and the accessories (headsets, cables, ...) must not be disposed of with household waste as they contain electronic components. Hand in the devices to a waste recycling company for electronic components or send it (with a brief note on the intended use) to *Medi*TECH Electronic GmbH. |

Technical data

Protection class	IP 20 (according to ISO EN 60529)
Power supply	Battery operation (recommended) Charging via USB-C power supply unit / power bank
Power consumption	max. 550mA mA at 5V
Operating current	650 mA
Service life	approx. 10 years The year of manufacture is noted on the type plate
Dimensions width x height x depth	13 cm x 5 cm x 12,5 cm (viewed from the front)
weight	313 g

Operating temperature	
Ambient temperature	+10°C to +40 °C
Relative humidity	30% - 75%
Air pressure	700 - 1,060 hPa

Storage and transportation	
Ambient temperature	+10°C to +40 °C
Relative humidity	30% - 75%
Air pressure	700 - 1,060 hPa

⚠	**Attention!**	Only operate the device in dry rooms. Protect it from moisture and humidity. The appliance could be permanently damaged. This could result in damage to the user or third parties.
☞	**Note:**	Only use the original packaging in which the device was delivered for storage or transportation. Secure it adequately against shocks during transportation.
☞	**Note:**	No liability is accepted for damage caused by improper handling.

Type plate

The following type plate is located on the underside of the *Brain*Central. The information has the following meanings:

Contact details of the manufacturer

Year of manufacture

Product name of the device

Item number

Serial number of the device

Accessories required

Read and follow the instructions in the manual

The appliance must not be disposed of with household waste!

Warranty

When you purchase the *Brain*Central from *Medi*TECH Electronic GmbH - Wedemark, you receive a two-year warranty for the proper functioning* of the device.

In addition to this warranty, we offer you a telephone hotline service for questions and problems for the entire time you work with the device.

You can reach the telephone hotline at

+49-(0) 5130 - 97778-0

Of course you can also send us your questions

by fax: +49-(0)5130 - 97778-22
by email: service@meditech.de

---

*   Malfunctions and damage caused by improper use by the user are excluded.