



# Preparing For Participation In A Meditation Study

**\*\*Please review these materials prior to your arrival\*\***

**There is also a video available for viewing here:**

**<https://www.youtube.com/watch?v=pxawstd7qsY>**

If you have any questions, please email [nicco@advancedconsciousness.org](mailto:nicco@advancedconsciousness.org)

# About This Experiment

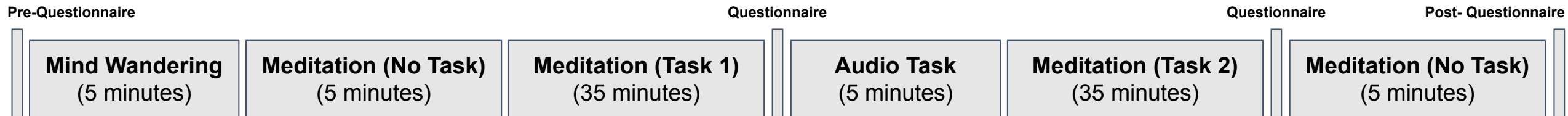
- This experiment is intended to identify the brainwaves associated with different states throughout your vipassana meditation.
- You were selected for this study based on your extensive experience with vipassana meditation. Therefore, during the study, we encourage you to employ your typical process, as you would do during your daily meditation.
- Your main task in this experiment will be to rate the depth of your meditation on a scale from 1- 5 at various points throughout the study, as accurately as is possible.
- The study will take place over 2 site visits and will take about 3 hours each visit.

# Getting Started

- Upon arriving to the lab, you will be asked to take a few short questionnaires that we encourage you to answer as honestly as possible. You will not be judged on your responses and all responses are de-identified.
- Afterwards, you will be set up with an EEG and some other body sensors. As a reminder, the EEG requires us putting conductive gel onto parts of your head/hair. We kindly request that you do not use any products in your hair that day and do not have any tight braids or dreadlocks. A shower will easily wash away all the gel, but parts of your hair may be unsightly and stiff until then.

# General Task Instructions

This experiment is made up of 6 “Blocks” (periods of time) and 2 questionnaires, in addition to pre- and post-experimental questionnaires.



- You will see instructions before each Block and will be able to ask questions before starting. We will familiarize you with the task blocks and questionnaires above in this document to help you be prepared and will go over everything and answer any questions the day of the experiment.
- Generally speaking, your eyes are closed for the entirety of each block and remain closed until you hear 3 Gongs. **3 Gongs in a row is always your signal to open your eyes.**

# Task Instructions

**Mind Wandering**  
(5 minutes)

**Meditation (No Task)**  
(5 minutes)

**Meditation (Task 1)**  
(35 minutes)

**Audio Task**  
(5 minutes)

**Meditation (Task 2)**  
(35 minutes)

**Meditation (No Task)**  
(5 minutes)

- The first task is **Mind Wandering**. During these 5 minutes, we ask that you keep your eyes closed the entire time. We ask that you do your best to not meditate during this time, instead feeling free to let your mind wander as you so please.
- When the 5 minutes have past, you will hear three (3) gongs. This marks the end of the block and you can open your eyes.

# Task Instructions

Mind Wandering  
(5 minutes)

Meditation (No Task)  
(5 minutes)

Meditation (Task 1)  
(35 minutes)

Audio Task  
(5 minutes)

Meditation (Task 2)  
(35 minutes)

Meditation (No Task)  
(5 minutes)

- The next block is **Meditation**. During this block, you will not be asked to do anything. We ask that you meditate as you normally would.
- At the end of the 5 minutes, you will hear a voice that will ask you to report the depth of your meditation on a scale from 1-5 and then the confidence of your report on a scale from 1-5 (more on this later).
- After making your responses, you will hear three (3) gongs. This marks the end of the block and you can open your eyes.

# Task Instructions

**Mind Wandering**  
(5 minutes)

**Meditation (No Task)**  
(5 minutes)

**Meditation (Task 1)**  
(35 minutes)

**Audio Task**  
(5 minutes)

**Meditation (Task 2)**  
(35 minutes)

**Meditation (No Task)**  
(5 minutes)

- The **Meditation Task Blocks** are the main part of the experiment. During each of these blocks, you will be asked to meditate as you normally do for a period of 35 minutes. However, you will also be asked to “report” your “meditation depth”.
- There are two different ways you will be asked to report depending on which task-type is randomly assigned to you that day. In one block, you will “self-report” your ‘meditation depth’ for the time period preceding the moment you noticed your mind had wandered. In the other block, you will be “probed” or asked at random intervals to report your meditative depth for the period of time prior to the probe.

# Task Instructions

Mind Wandering  
(5 minutes)

Meditation (No Task)  
(5 minutes)

Meditation (Task 1)  
(35 minutes)

Audio Task  
(5 minutes)

Meditation (Task 2)  
(35 minutes)

Meditation (No Task)  
(5 minutes)

- One of the **Meditation Task Blocks** will be a **“Self Report”** task where you will be asked to report the depth of your meditation after having emerged, becoming aware that your mind had started to wander and was no longer focused on your meditation. The ‘depth’ you indicate should reflect the ‘deepest experience of meditation’ that occurred since your last response.
- Once you provide your meditative depth, you will also be asked to report on scale of 1 to 5 your confidence in your response. After responding to these two questions, you will be asked to return to your meditation. This will mark the beginning of the next meditation period.
- During the self-report block, we encourage you to **make as many reports as you feel appropriate, erring on the side of reporting more frequently as opposed to less.**



# Task Instructions

**Mind Wandering**  
(5 minutes)

**Meditation (No Task)**  
(5 minutes)

**Meditation (Task 1)**  
(35 minutes)

**Audio Task**  
(5 minutes)

**Meditation (Task 2)**  
(35 minutes)

**Meditation (No Task)**  
(5 minutes)

- In the **Self-Report Meditation Task Block**, you will make a quick series of button presses (Between 1 press and 5 total presses) to indicate the depth of the meditation from which you just resurfaced.
- After making your response, a voice will ask you to then rate your confidence in how well you responded to your meditation depth. You will have approximately 3 seconds to respond. If you were initially unable to respond and evaluate your self-reported meditation depth in time, please press a 1 for the confidence question. It is ok if you miss the response window, please simply continue with the experiment.
- When reporting your meditation depth, if you feel you have made an incorrect assessment, or you are not confident in your response, you can indicate so with your confidence measure.

# Task Instructions

**Mind Wandering**  
(5 minutes)

**Meditation (No Task)**  
(5 minutes)

**Meditation (Task 1)**  
(35 minutes)

**Audio Task**  
(5 minutes)

**Meditation (Task 2)**  
(35 minutes)

**Meditation (No Task)**  
(5 minutes)

- The other **Meditation Task Block** will be a **“Probe”** task where you will hear a voice over the headphones at random intervals, asking you to provide the ‘depth’ of your meditation for the period of time since your last response, as well as your confidence in your depth rating. In this condition, you are asked to only provide your meditation depth and confidence when asked. Do not spontaneously report during the probe sequence block, just meditate as normal until you hear the voice.
- The ‘depth’ you indicate should be a reflection of the ‘deepest state of meditation’ that occurred since we last asked you.
- Once you have finished responding to the probes (meditation depth and confidence in response), you will be asked to return to your meditation. This will mark the beginning of the next meditation period. Your next response to “meditative depth” should only refer to that preceding period of time.

# Task Instructions

Mind Wandering  
(5 minutes)

Meditation (No Task)  
(5 minutes)

Meditation (Task 1)  
(35 minutes)

Audio Task  
(5 minutes)

Meditation (Task 2)  
(35 minutes)

Meditation (No Task)  
(5 minutes)

- In the **Probe Meditation Task Block**, you will have approximately 3 seconds to respond to questions throughout the experiment, so we encourage you to respond as quickly and intuitively as possible. If you are unable to respond and evaluate your meditation depth in time, please press a 1 for the confidence question. It is ok if you miss the response window, please simply continue with the experiment.
- When reporting your meditation depth, if you feel you have made an incorrect assessment, or you are not confident in your response, you can indicate so with your confidence measure.

# Task Instructions

Mind Wandering  
(5 minutes)

Meditation (No Task)  
(5 minutes)

Meditation (Task 1)  
(35 minutes)

Audio Task  
(5 minutes)

Meditation (Task 2)  
(35 minutes)

Meditation (No Task)  
(5 minutes)

- During both the **Self Report and Probe Meditation Task Blocks** you may or may not (due to randomization) hear a series of three tones: a standard tone (most common tone), a deviant tone (a higher pitched tone occurring less often), and a distractor tone (a white noise tone, also occurring less often).
- These tone will be continuously presented in the background. During the meditation block(s) you are not required to do anything other than **ignore these tones** to the best of your ability while remaining focused on your meditation.

# Task Instructions

**Mind Wandering**  
(5 minutes)

**Meditation (No Task)**  
(5 minutes)

**Meditation (Task 1)**  
(35 minutes)

**Audio Task**  
(5 minutes)

**Meditation (Task 2)**  
(35 minutes)

**Meditation (No Task)**  
(5 minutes)

- During both the **Self Report and Probe Meditation Task Blocks** you will sometimes hear a **single (1) gong**. This is a simple reminder to gently bring your attention back to your meditation. No response is necessary and you should continue to **keep your eyes closed**.
- Anytime you hear three **(3) gong sounds** in a row during the experiment, this is a signal that the block is over and you may **open your eyes**.
- Until you hear the (3) gong sounds, be sure to keep your eyes closed, even when responding with the button presses.

# Task Instructions

Mind Wandering  
(5 minutes)

Meditation (No Task)  
(5 minutes)

Meditation (Task 1)  
(35 minutes)

Audio Task  
(5 minutes)

Meditation (Task 2)  
(35 minutes)

Meditation (No Task)  
(5 minutes)

- In between the Two Meditation Task Blocks will be an **Audio Task Block**. This task is comprised of a series of three tones: a standard tone (most common tone), a deviant “oddball” tone (a higher pitched tone occurring less often), and a distractor tone (a white noise tone, also occurring less often).
- These are the same tones that you were instructed to ignore during the Meditation Task Blocks.
- **Only** during this **Audio Task Block** will you be instructed to actively pay attention to these tones during your closed-eye meditation and **respond with a button press whenever you hear the deviant (higher pitched) “oddball” tone.**

# Task Instructions

**Mind Wandering**  
(5 minutes)

**Meditation (No Task)**  
(5 minutes)

**Meditation (Task 1)**  
(35 minutes)

**Audio Task**  
(5 minutes)

**Meditation (Task 2)**  
(35 minutes)

**Meditation (No Task)**  
(5 minutes)

- The final block is **Meditation**. Just like the first 5 minute meditation block, you will not be asked to do anything. We ask that you meditate as you normally would.
- At the end of the 5 minutes, you will hear a voice that will ask you to report the depth of your meditation on a scale from 1-5 and then the confidence of your report on a scale from 1-5.
- After making your responses, you will hear three (3) gongs. This marks the end of the block and you can open your eyes.

# How To Respond: Meditation Depth

- You will be provided the button clicker illustrated on this slide. It will be placed on your finger. Both of the two arrow buttons work, so please use whichever feels the most comfortable.
- During the **Meditation Task Blocks**, the number of button presses you make should indicate the depth of your meditation since your last response.
- Please use the following scale to help you determine how many button presses (between 1 and 5) that you should make.

- 1 press - extremely shallow
- 2 presses - very shallow
- 3 presses - neither shallow nor deep
- 4 presses - very deep
- 5 presses - extremely deep





# How To Respond: Response Confidence

- In the event that you make an error responding, or realize after responding that your response did not truly capture your experience, you can indicate this in your confidence rating. For confidence ratings:

- 1 press – incorrect button response
- 2 presses – not confident
- 3 presses – somewhat confident
- 4 presses – confident
- 5 presses – very confident



- After responding to the depth and confidence questions, you will be asked to return to your meditation. This will mark the beginning of the next meditation session.
- After providing these reports, we encourage you to immediately try and “resubmerge” back into your meditative state.

# Additional Instructions

- Throughout the entire experiment we will ask that you remain as still as possible. This is because EEG data and measurements are easily disrupted, and rendered unusable in the event there is head, body, and muscle movement.
- It may help to practice doing the **Self-Report Meditation Task Block** at home during your regular meditation sessions so as to familiarize yourself with the act of “rating your meditative depth” so that you can provide more confident responses.
- We ask that you maintain normal routines in the days leading up to the experiment, come in well rested, and try to refrain from recreational drug use the day/night before your sessions. If you normally consume caffeine, you should feel free to consume your normal amount. Otherwise, we ask you continue to refrain the day of your session.

# Reminders

- 1 Gong is simply a reminder to bring your attention to your practice. No response is needed.
- 3 Gongs means open your eyes. Eyes should be closed at all other block times.
- You should try to ignore the tones presented in the background of the Meditation Task Blocks. You only need to respond to the higher pitched “oddball” tone during the Audio Task Block.
- Make as many spontaneous responses during the Self-Report Meditation Task Block as you feel necessary.
- Depth should reflect the deepest point you reached during the response period.

# THANK YOU

Your participation in this study is genuinely appreciated. You are helping to advance the scientific understanding of the brain during the meditative experience.

We strongly encourage you to share our sign up link (<https://meditation.studyenrollment.com/>) with anyone you feel would also qualify.

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