



CLASS 7 | MEMORY 101

Introduces the three stages of memory with a challenging short-term memory game.

TBH FOCUS



SHARPEN SKILLS

SKILLS WORKED



SBBT



ALL TOGETHER

YOU WILL NEED

- Stopwatch or timer
- Whiteboard or flip chart and markers
- *Now Do It!* worksheets and *TBH Takeaway* handouts, enough for each student. Distribute to distance learners ahead of class
- Video conferencing technology if modifying for virtual delivery



WELCOME TO CLASS!

- Welcome any new students using the *Welcome to the TBH Course* introduction.
- Introduce today's class.

Today's topic is "Memory 101." Our TBH Focus is the "Sharpen Skills" action point. We are going to learn the basics about how memory works.

We will be working on the following thinking skills today:

P Perception

A Attention

ST Speedy Thinking

N Nimbleness

VE Verbal Skills

M Memory



TBH LET'S GET IT STARTED!

5 MINUTES

- Lead this upbeat, seated warm-up to build focus, energy and get everyone ready to learn.
- Encourage class to count along and support each other.
- See the [TBH Let's Get It Started! playlist](#) for suggested music to set the pace of your workout.
- See the course introduction for a fully scripted version of this workout.
- Mute distance learners to avoid noisy distractions.

We are going to begin with *TBH Let's Get It Started!* Being physically active is great for our brains. This quick warmup is a great way to get focused, build energy and get us ready to learn. We'll do this right at our seats at the beginning of every class. Just watch what I do and follow along!



FEET GET STARTED!

- ▶ Rock feet together up on the toes, then back on the heels. 8 repetitions. Count together from 1 to 8.
- ▶ Alternate rocking action simultaneously with left foot starting with toe up and right foot starting with heel up. 8 repetitions. Count backward together H to A.

LEGS GET STARTED!

- ▶ Gently lift 1 leg off the ground and circle ankle. 8 repetitions. Count together from A to H.
- ▶ Gently lift alternate leg off the ground and circle ankle. 8 repetitions. Count backward together 8 to 1.
- ▶ March feet on the ground, alternating feet. Make “noise” with group.

HIPS GET STARTED!

- ▶ Circle upper body right to left. 4 repetitions. Offer 4 words to remember as the count.
- ▶ Circle upper body left to right. 4 repetitions. Repeat backwards the 4 words to remember as the count.
- ▶ Wiggle hips side to side. 4 repetitions. Ask class to recall 4 words to remember as the count.

ARMS GET STARTED!

- ▶ Gently shake arms to the side of the body.
- ▶ Circle wrists a few times in clockwise and counterclockwise.
- ▶ Flick fingers while circling arms first low in front, then below shoulder level, up high, out to the sides, and down front. 4 circle repetitions. Count by 2's (2,4,6,8).
- ▶ Shrug shoulders up and down, alternating right left shoulder. 4 repetitions. Ask class to recall 4 words to remember as count.
- ▶ Roll shoulders forward, then backward. 3 repetitions each direction. Count together 1 to 3 and then 3 to 1.

VOICES GET STARTED!

- ▶ Say “OHHHHHHHHHHH.” Have group say sound with you. Hold for a few seconds. Try drawing circles in each cheek with the tip of the tongue while making the sound.
- ▶ Say “EHHHHHHHHHHH.” Have group say sound with you. Hold for a few seconds.
- ▶ Say “AHHHHHHHHHHH.” Have group say sound with you. Hold for a few seconds.
- ▶ Say “OH – EH – AH.” Hold each sound for a few seconds. 3 repetitions.
- ▶ Say “She says she shall sew a sheet.” Repeat this famous tongue twister exercise, focusing on articulation and participation. 3 repetitions.

MEMORY GETS STARTED!

- ▶ Ask class to recall four words learned as part of counts above.

BREATH GETS STARTED!

- ▶ Slow focus to bring awareness to sitting still in chair.
- ▶ Take a deep breath in through the nose and exhale out through the mouth.
- ▶ Give a full body shake and a wiggle.
- ▶ Give selves big hug, wrapping arms across waist and squeezing gently, as able.
- ▶ Thank selves and send some “TBH love” to our brains!

Great job, everyone! We are started up and ready to go!



BRAIN PLAY | NAME THAT COUNTRY

5 MINUTES

- Lead this quick cognitive warm up to build attention, processing speed, nimbleness and other cognitive skills, as well as group connection.
- Have students work together to name as many countries as they can, in just 3 minutes. They cannot repeat any country twice.
- Have everyone clap or snap fingers to set a good pace.
- The trainer or a student will write the countries named on the whiteboard/flip chart.
- Encourage distance learners to join in from home.

Now let's do our "Brain Play." As we know, research shows that working against the clock is an important way we can keep our thinking fast, focused and nimble. And all these skills are essential to learning and remembering better! We will "play" with our brains at the start of every class to support these important cognitive skills.

Today's Brain Play is called "Name That Country." We are going to work together to name as many countries as we can. But we only have 3 minutes! And we can only name each country once. (I'll / Name of student) write the countries we name here on the (whiteboard/flip chart) so we can keep track together. Let's set a good pace by (clapping/snapping our fingers) as we go. Ready? Let's see how many we can name. Ready? Go!



LEARN THE TBH SCIENCE

5 MINUTES

- Present the science behind the class.
- Allow for brief discussion of the science with your students.

Before we improve our memories, we first need to understand how memory works. We use 3 steps to learn and remember: Acquisition, Storage, and Retrieval.

Step 1: Acquisition. The first step of memory is Acquisition. Acquisition is the step by which we take in the new information. Acquisition requires us to be able to sense – that is to hear, see, smell, feel or taste the "information" we are learning. Attention is critical to acquisition. We have to be able to focus on this new information to acquire it effectively. Because it relies on sensation and attention, the acquisition stage of memory is very sensitive to interference. Often, we think we have forgotten something when we never actually "got it in the first place."

Step 2: Storage. The second step of memory is Storage. At this step, we take the information we successfully "got" or acquired and "move" it into "storage" so that we effectively put it away for when we need it. This step is also referred to as "encoding." Storage is perhaps the least understood step of memory, as the process our brains use to store different kinds of information is complex and can differ across individuals. However, this step is tremendously important as we work to improve our memories. Why? Because it is at this step – storage –



that memory strategies come into play. These strategies work by enhancing our “storage” of this new information, making it much more likely we will later remember things like someone’s name or a conversation. And this is exactly what we will be learning how to do in this course together.

Step 3: Retrieval. The last step of memory is Retrieval. Retrieval is the step we are truly referring to when we talk about “remembering.” To retrieve, we go into our brain’s “storage” and access information we effectively acquired previously.

It is these 3 steps of memory – Acquisition, Storage and Retrieval – that we use to learn and remember everything. And while memory is a complex part of cognitive function, in some ways it is just as simple as this “1-2-3” framework!



NOW DO IT!

15 MINUTES

- Lead your class in this workout to personalize their learning of the science. Option to distribute class worksheets.
- Read the first “string” of 4 numbers and letters below aloud to your class (“7, B, 6, 4”). Be sure to read slowly and clearly, without pausing or breaking your cadence.
- When you finish, ask the class to say the string together aloud, in exact order.
- Continue on to a new string of 5 numbers and letters, reading them aloud in the same manner and asking your students to work together and repeat the numbers and letters back to you in the same exact order. Increase the challenge of the workout each round with a string that includes one more digit or letter each time.
- Complete as many rounds as time allows. Option to start again with 4 item “strings” when your students can no longer recall a longer string.
- When repeating this class, select different number and letter “strings.”
- Encourage distance learners to participate together as part of the larger group.

Here’s a challenging but really fun workout we are going to do all together. It’s a great way we can practice these 3 steps of memory. First, I’m going to read you a string of numbers and letters. After I read the string, I’ll pause. Everyone will then repeat that string back, in the same exact order as I read them to you. Then we’ll move on to the next string. Don’t worry if you can’t remember everything in a string. We will be working together as a group, so everyone will have the chance to support each other. Research shows that on average we can recall only about 7 bits of information in a string like this. But we may try some that are longer and see how we do when we use combine our memory strength together! Here’s the first string.



MEMORY 101 NUMBER/LETTER STRING PROMPTS

4-STRING LENGTH

7 B 6 4

A 4 9 8

S 1 T 9

6 -STRING LENGTH

2 7 1 3 6 4

T G 7 H 2 8

5 9 D U 3 M

8 -STRING LENGTH

R P M 6 T 2 X 1

U 8 3 W S 9 Q L

1 4 G A 7 C P 3

5-STRING LENGTH

9 2 F 4 N

7 3 V 1 C

6 J D 3 8

7 -STRING LENGTH

9 0 4 6 1 2 5

B 3 9 M 1 3 S

R 4 4 K 2 9 V

9 -STRING LENGTH

4 8 T B K 3 9 C E

9 1 F J L 3 8 2 Q

M J W Y 2 V A 9 K

Nice work, everyone! Some of those strings are really challenging. But this kind of exercise is a great way to see acquisition, storage and retrieval in action.



TBH TAKEAWAY

10 MINUTES

- Share this brief wrap-up to end the workout.
- Distribute or email class handouts.
- Ask students to share one thing they will “take away” from today’s class.

Today we learned some basic facts about memory. We now know that we learn and remember using three steps. And that testing our memory with something even as simple as a string of letters and numbers can be an effective workout!

Here is a handout to help you practice building your attention on your own.

Which step of memory do you think is most challenging for you – acquisition, storage or retrieval?



TBH TAKE A BREATH

5 MINUTES

- Lead this signature relaxation and affirmation exercise to close the class.
- See the [TBH Take a Breath playlist](#) for suggested music to set the pace of your workout.
- See the course introduction for a fully scripted version of this workout.
- Mute distance learners to avoid noisy distractions.

Let’s wrap up with our “TBH Take a Breath.” Being mindful of our breath and sharing some positive thoughts is a wonderful way to acknowledge what we’ve learned together before we go back to our day. Research also shows that these kinds of exercises help us focus better and even learn more effectively.



- ▶ Have students get comfortable, resting both feet flat on the floor, hands resting in their laps.
- ▶ Have students close their eyes and keep them gently closed.
- ▶ Ask students to focus their attention on their breathing, noticing the rate and rhythm of their breath. Allow them to focus on their natural breathing for a few moments.
- ▶ Instruct students to begin rhythmic breathing. Ask them to inhale slowly and deeply through their nostrils, breathing gently into their chest and belly. Then ask them to exhale slowly through their lips, slowing the rate and rhythm of their breath.
- ▶ Have students continue rhythmic breathing, instructing them to continue to focus on gently and slowly inhaling and exhaling, allowing their attention to simply “ride” the wave of their breath. Allow them to focus on rhythmic breathing for several moments.
- ▶ Offer the following positive affirmation statements below in a calm, slow voice. Invite students to simply listen, repeat the phrase silently to themselves, or to think about what each statement means to them.

My mind is relaxed.

I am grateful that I can learn new things.

I am grateful that I can remember new things.

I am grateful for my classmates.

I take this time and this breathe for me.

- ▶ Pause for several moments.
- ▶ End the exercise by inviting students to bring their awareness back to the room, gently opening their eyes and becoming more aware of their surroundings.
- ▶ Invite them to end practice with gratitude for taking a moment for themselves, for the chance to learn together and connect with each other.



COMING UP NEXT!

2 MINUTES

- Thank students for attending the class.
- Invite students to join you for the next TBH class.

Thank you for today’s time to learn together. Exercising our memories together was fun!

I look forward to seeing you for our next Total Brain Health class. Be sure to bring a friend!



CLASS RESOURCES

NOW DO IT! WORKSHEETS

Use these optional worksheets to run your class.

Memory 101 Worksheet. Use this worksheet to support the class instruction as needed during physical distancing or for distance learners.

TBH TAKEAWAY HANDOUTS

Distribute these optional handouts to extend the learning experience.

3 Steps to Learning and Memory Handout. A recap of the three steps of learning and memory students can use to extend their learning outside the classroom.