

THINK TANK: Body Brain

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Haptic (tactile-kinesthetic) Teaching in the Classroom

Why? And Some Ways

You've heard the adage: "Neurons that fire together, wire together." You've probably also heard that "multi-sensory teaching" is the way to teach. Multi-sensory just means making use of more than one sense. And, doing so, they are making direct use of what the brain does so well: making sensory-motor connections, which, in turn, lead to learning and memory.

Students probably already know the five senses, but they may not know the scientific names for them: Sight (Visual), Hearing (Auditory), Touch and Movement (Haptic), Smell (Olfactory) and Taste (Gustatory – although here in Japan, they do know the family restaurant "Gusto." So now they know the source of the name).

"Haptic" is probably a new word for students. It combines "tactile" – "touch" and "kinesthetic" (body movement and muscle feeling), Sometimes haptic is referred to as "tactile-kinesthetic." It is often just "kinaesthetic" in British English (Cambridge Dictionary). Related to these are the "vestibular sense" involving movement and balance and "proprioception" – body awareness (Rymanowicz, 2014). Fortunately, there is no particular reason for students to keep track of all this different vocabulary. It is enough to know that each sense is handled by a different part (cortex) in the brain.²

² Why did we use this image of a child's brain? Three reasons. The topic of "brain science" can be intimidating for some learners. So using a picture of a child make it look easier. This particular picture mainly labels the sensory cortexes (or cortices), not all the parts. So, it is easier for the learners to

ANATOMY HUMAN BRAIN AREAS CEREBRAL CORTEX Primary motor area Somatosensory cortex Visual cortex Olfactory cortex Auditory cortex

OK, here's the good news. The brain science behind multi-sensory teaching is easy to explain to learners and it is also easy to do.



How does this work in the classroom? Let's say you decide to teach a new Beyoncé song today. You start by putting a photo of the singer on your screen. The students see it. BUZZ- it triggers their visual cortex. Then she starts singing. They see her (BUZZ) and hear

Motor areas Sensory areas Association areas

her (BUZZ). Both the visual and auditory cortexes are triggered. They connect. Then she starts dancing: the singer, the song, the dancing (BUZZ BUZZ BUZZ), the somatosensory cortex which handles all haptic input is triggered along with the auditory and visual cortexes. The neurons are firing together and, at the same time, wiring together in a Beyoncé circuit.

understand what they need to know. Finally, this particular image, from canstockphoto.com was reasonably priced, so we could afford to pay for it.



And the more senses we use, the more deeply we learn. So, those are reasons we want to use multiple senses in our classes. All of the senses are strong, but smell and taste are less flexible, and therefore less useful in the classroom than the others. As Tokuhama-Espinosa put it, "Teachers should teach to auditory, visual, and kinesthetic pathways...to improve the chances of recall and engage students in opportunities to discuss, debate, and question ideas." (2011)

Auditory is easy. Teachers talk. Students talk to each other. Many textbooks come with audio components. Visual is automatic, too. Your textbook probably has pictures. Learners are looking at you and each other. We use videos and PowerPoints which should include a lot of pictures. You might even try visual notetaking. Haptic is less automatic. Textbooks rarely ask students to move or even to draw. Fortunately, it is a sense you can easily add to your classroom. Below are 20 ideas that you can use in many language classes. Haptic can include simple "touch" activities, but most of these include a lot of physical movement. That increased blood flow which increases mental alertness. (The lack of physical movement is one reason student get sleepy AND most of us find it so hard to keep paying attention during faculty meetings!)

Start moving

• **Don't hand out the handouts.** If you have handouts to give the students, don't pass them out. Instead, put a few stacks in the front/back of the room and have the students stand up and get their own. Note: This is just one example of looking for chances to have the students stand and move. According to Sousa (2017), when we sit for 20 minutes, blood builds up in our feet and buttocks. When we stand and move for one minute, there is a 15% increase of blood (and therefore oxygen) to our brain (see the point about blood flow above). Looks for chances to get your students moving!



- Walk & talk. When you want students to discuss what they are doing or have been studying, have them find a partner. The stand up and walk around the room while they talk. It will feel strange at first but let them know the reason (the "sit for 20 minutes information" above.). They'll soon get used to in and will appreciate it.
- **Shall we dance?** Before a conversation/discussion activity (one where they don't need to pay close attention to their book), put on some instrumental background music (BGM). Encourage the students to move to the rhythm. Then they do the discussion. Note that YouTube.com has lots of types of BGM: classical, jazz, J-pop, K-pop, Disney, Ghibli, etc. The students aren't really dancing. The point is to stand and move. The music just makes it easier.
- **Listening touch the picture/words**. During a listening activity, encourage students to touch the part of the picture or text being talked about.

Conversation/dialog practice

- **Human recorder**. For a 2-person dialog, students work in threes. They stand. Only one person has their book open. That person reads the dialog. Partners repeat and practice. Note this doesn't really require much movement, but, if they are standing, it usually happens.
- While you are doing something else. Brainstorm activities they could be doing while having a conversation (e.g., drinking coffee, cleaning up their desk, etc.). Then, as they practice, they do the actions.

- **Listen and Act.** When students are practicing textbooks dialogs, add an action to each line. Students practice in threes (for a 2-person dialog). The extra person is the director. The director "feeds" the partners their lines, telling them the action to do. (e.g., "Point to the window. Say, "What's that?") Idea credit: Dale Griffee
- **Touch a rainbow.** Teach or elicit the colors of the rainbow in order (Red, Orange, Yellow, Green, Blue, Indigo [dark blue, like new jeans], purple [violet]). As they practice the conversation, they walk around the room, looking for items of those colors. They touch the items in order. When they finish, they do it again. They must touch different things this time. Again, the rainbow/order of colors doesn't really matter. The point is to get them moving.
- **Post-it outlines.** When students need to make outlines for papers, presentations, etc., give them post-it notes (sticky notes). They put the notes on large (B4 or A3) pieces of paper. The notes make it easy to rearrange the ideas. Note: 100 yen shops/dollar stores or your local equivalent probably have cheap, multi-colored post-it notes.
- **Colored pencils** Get a few sets of colored pencils (again, check out a 100 yen/dollar shop). When appropriate, have students draw their answers. By the way, I ban erasers. Most of my students are good at drawing and they'll take forever to make their pictures perfect. You don't need to spend a lot of time. I point out this is English class, not art. Different colors are great when students are making mind maps. And mind maps are visual and require drawing or at least more than linear notetaking so they are multi-sensory.

And keep moving

- **Stand up. Find a new partner.** When changing to new activities like pair work and group work, have students stand up and move to find their new partner. You might assign a mini-task like "someone you haven't talked to today," "someone wearing the same color as you." "someone you don't know very well." If it is early in the year, point out that, in addition to the benefit of physical movement, they are making new friends.
- Energy breaks. People are not designed to sit for a whole class period. Try adding a short (5 minutes or less) bit of physical movement/exercise. I have 18 "energy breaks" that have PowerPoints that introduce activities **plus brain science at a level students can understand.** The increase in student energy will be a very worthwhile return on the class time it uses.

• **Line up** – This is for fluency activities. Have students make lines. They stand face-2-face with a partner. They speak for a given period of time (say, 2-4 minutes). They one line moves to the left (or right). They have a similar conversation with the new partner. Variation: Change this to the famous 4-3-2a ctivity. ³ They have four minutes the first time, three minutes the second and two minutes the last time.



• Well-balanced students. This is for fluency activities, too. Students work in pairs. They face their partners. They stand toe-to-toe and grip their partners' wrists. They lean back balancing their partner's weight. (Really balance, not just leaning back). They discuss the assigned topic as long as they can without losing balance. Once they understand the idea, try other body positions: back-2-back, shoulder-2-shoulder, balance on one leg, etc.

• On the board. The whiteboard/chalkboard is usually "the teacher's space." Adult students rarely write on it. When students are doing any kind of group brainstorming activity, some groups always work faster than others. If you have a decent amount of board space, have those students go to the board and write some of their ideas on the board. Other groups can see and use those ideas. It gets the writers up and moving and sort of gives them power since they are using space usually reserved for the teacher.

- Off-the-wall dictation. Decide on a short dictation text and add movement to it in this way: Make enlarged copies on A3 paper. Put the copies on the wall, white/chalkboard, etc. Students work in pairs. The first student goes to the text copy, reads and tries to remember as much as possible. She comes back and dictates it to the partner. Then the partner goes to the copy on the board, reads and remembers the next part. They continue until they've written the whole text.
- **Peer-dictation**. Another way to add movement is as follows: Decide on a short dictation text that can be broken into separate sentences. Copy it and cut into strips. Each student gets one strip. They stand, circulate, dictate their sentence to partners and write their partners' sentences. The continue until they have written the whole text. If the text is too long, cloze (blank out) key words. Give everyone a copy of the text with blanks. They write the key words.

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³ Paul Nation (1989) usually gets credit for inventing 4-3-2 but he credits Keith Maurice with originating it.

Pronunciation practice

All of these work on the rhythm of English, thereby enrolling the auditory and motor cortices to lock in the learning.

- **Pronunciation patty cake.** This pronunciation technique works on rhythm. Teach the students "pattycake" (if you don't know it, check <u>YouTube.com</u>. Ignore the "roll it and pat it, etc. part." Have student do the pattycake actions in rhythm. Have them repeat the target sentences (language map) for the activity, keeping the rhythm. Have them do it 3-5 times.
- Rap it. Find a free drum machine online (one good one is www.drumbit.app). Find a simple rhythm. Play it. Have student practice the target sentences in rhythm. Again, have them practice a few times. BTW, you can use the same technique to turn almost any textbook dialog into a "jazz chant." HERE's a link of Jazz Chant originator Carolyn Graham explaining the technique. She talks about American English but, of course, the variety doesn't matter.
- Rubber band rhythm. Get large, thick rubber bands. Everyone gets one. Students put it over both thumbs. They practice the target sentences, stretching the rubber band on the stress syllables.
- for more multi-sensory pronunciation ideas, see this <u>PDF</u>.

Did you notice most of these ideas take little or no preparation? And having 20 ways to get your students moving mean you can easily add multi-sensory, haptic practice and variety to every class. And you are building those brain connections the whole time.



Marc Helgesen, Professor emeritus at Miyagi Gakuin, Sendai, has two websites you might be interested in: https://www.eltandhappiness.com/ and https://helgesenhandouts.weebly.com/. He's an author of (Pearson) and English Teaching and the Science of Happiness (ABAX).

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<u>Fostering Language Learning</u> <u>through Using the 5 Senses</u>

Ms. Ghada Yacoub was a
Fulbright teaching assistant, and
she talks about how she used the
5 senses when teaching her
students Arabic at a university in
Ohio. Don't miss how she made
Arabic fun!

