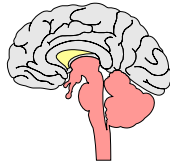


## TWENTY-FIVE BRAIN-FRIENDLY STRATEGIES



1. Music alters brain chemistry. It can be used to energize, calm, or increase effective functioning on tasks. It can be used as a call back, as a timer, a transition, or to constructively increase suspense or tension.
2. Start class sessions with a greeting, an overview, or some other class ritual.
3. Begin each class session with meaningful information and activities rather than taking attendance, making announcements, or doing other “housekeeping” chores.
4. Create positive expectations by framing activities properly. Tell students what’s in it for them. For example, “Today you’re going to learn about determining the main idea, a comprehension skill that will help you be more successful in virtually every course you take in college.”
5. Whenever possible, give students a choice so that locus of control remains with them. This is especially important to adult learners. For example: “Which would you rather do next?” “How would you prefer to proceed?” “Would you rather list the main points or draw a concept map?” “Which item would you like for us to do together as an example?” Choice lowers stress and triggers the release of good brain chemicals.
6. The brain links all new learning to existing knowledge, so start with the known, from the knowledge and information students already possess. If necessary, supply or help them obtain the background knowledge they need. Check to see what they already know or understand. Doing this enables students to be more successful from the start, and it’s motivating to students to start with a no-fail activity.
7. Pose a problem for students to solve. For example, ask them, “Can you figure this out?” or “What would happen if...?” The brain grows by trying to solve problems, and not by having the correct answer. The goal is to find the level of “doable challenge,” right at the edge of what they can do. Things that are too easy or already known bore students; things that are too hard merely frustrate them. Neither situation is conducive to learning.
8. Use novelty in the way you present material. The brain craves novelty, so use game formats (even better, have students create some of them); pair or group students in novel ways; impose an appropriate, but slightly challenging time limit; use props, costumes, music, and so forth.

9. Use sound: It might be music, story telling, tapes, “talk-alouds” that reveal the mental processing the person is doing, oral repetition, or sound effects (a train whistle, chimes). Vary your own voice tone, volume, and rate of speaking.
10. Use color. Use it on transparencies. Use colored markers on the white board. Have students use color when making concept maps. Have students use two different color highlighters, such as pink for the topic and yellow for the stated main idea sentence. Print tests and other important handouts on colored paper.
11. Use collaborative and cooperative learning techniques. Move from individual to pairs/small group to whole class debriefing. For students to make the information theirs, they need to discuss it or explain it to someone else. Cooperative learning appeals to adults, who learn well from each other. Also, young adults, especially “Millennials,” are used to working together in teams, and they feel supported and comfortable in a group context. Cooperative learning is brain-friendly because the brain is inherently social. Moreover, if structured properly, this learning strategy can provide the safety, novelty, and challenge the brain craves. Familiarize yourself with this approach: There’s much more to it than just putting students in groups!
12. Move from familiar contexts to new/unfamiliar contexts. For example, in a reading class move from inferences based on interpreting cartoons and song lyrics to inferences based on written material. Also, for maximum understanding, students need opportunities to apply the same skill in a variety of contexts.
13. Initially, accept all responses without comment, other than to verify that you recorded their response accurately. Simply ask, “Anything else?” With cooperative learning strategies, students typically begin to self-correct as they proceed.
14. Incorporate humor. It’s a great stress reducer; it boosts the immune system; it enhances alertness and memory by increasing the flow of neurotransmitters. Include a funny story, a joke, or a cartoon in class or on a test. Start class with a short joke, one you tell or one a class member tells (screen students’ jokes first!). Gives students two minutes to share a joke with a small group. Make the guidelines clear as to the type of jokes that are appropriate.)
15. Use movement. For example, you can have students stretch, stand up (it increases oxygen to the brain), move into different groups, do some cross-lateral movements, raise their hands or hold up answer cards in response to questions. Remind students to take a few deep breaths, too.
16. Have students evaluate their own learning and processing. Do this in a variety of ways, such as those described under informal classroom assessment techniques in the “Other Techniques” section on this website.
17. Review often, and make review an ongoing part of what you do. Students rarely get it right the first time, so don’t expect them to. For a host of reasons, the typical student gets about 50-70% of what the teacher says; in fact, 80% of students learn better other ways than by hearing. Students need repetition and multiple learning

trials followed by lots of review. To review, use concept maps, cloze procedure, inner circle-outer circle, pairs review, etc.

18. Develop, or have students develop, classroom rituals. These can pertain the way students greet each other at the start of class or the way you end class, for example. The social climate of the classroom matters. It affects brain chemistry, which affects mindset, and one's sense of safety and well-being. These, in turn, influence cognition, which affects interest, motivation, and recall.
19. Use positive affirmations. Have students give them to each other ("Turn to someone close to you, give each other a high-five, and say, 'We made it!'"). Say them in class and have students repeat them; include encouraging comments on tests ("You can do it!") and handouts. Post these statements around the room above eye level. Students see them and they register, even through students may not be consciously aware of it.
20. Let students bring bottled water to class. Remind them to drink lots of water so that they are properly hydrated and so that their brains can function efficiently. (The brain consists of a higher percentage of water than any other organ.) Too little water contributes to lethargy and inattention. Inadequate water intake raises blood pressure and increases the production of certain stress hormones.
21. Capitalize on the power of scent since smell affects the limbic area, which is responsible for attention. Peppermint and citrus fragrances stimulate the brain; lavender is calming. (Watch for students who have allergies, however!) Right before class, lightly mist the room with a spritzer bottle that contains 16 ounces of distilled water, one half-teaspoon of essential oil (available at health food stores), and one ounce of vodka (makes the solution last longer and disperse better). Shake the bottle before spritzing it. Along these same lines, keep (sugarless) peppermint and/or lemon hard candies in the room. Sucking on one of these while learning material and then while taking a test over the material can help trigger recall of the material. Encourage students to experiment with this at home.
22. Avoid using any form of threat, such as harsh comments, sarcasm, putting students on the spot, embarrassing them, imposing unrealistic deadlines, giving pop quizzes, and praising students before they do something. The use of threats is damaging, literally. It causes the adrenal glands to release cortisol, which affects the brain and the rest of the body. Chronic stress impairs thinking, memory, creativity, the ability to perceive patterns, and the ability to solve complex problems and understand connections. It causes students to have difficulty sorting out what is important. Their immune system, vision, self-esteem, and achievement are compromised. Too much perceived threat causes feelings of helplessness, which can be paralytic. It can make students anxious, depressed, and restless. It's not good for them, and it only makes sense not to create problems for yourself.
23. Incorporate appropriate emotion since it drives attention and, therefore, affects learning. Incorporate role-playing, music, celebrations, and things that surprise or build anticipation. Share relevant personal experiences and connections.

24. Provide feedback at least every 30 minutes. It can come from you, from classmates, from computer-assisted instruction, by having students use a checklist or some other evaluative rubric to assess their own work, and self-correcting activities.
25. Post a “you are here map” on the wall so that students can see the big picture of how the course topics are sequenced or see the sequence of steps in a procedure. For important material, always let students know what is coming next so that by the time you get there, they’re expecting it and it sounds familiar.