



# DIY NeuroELT: Ways to make your textbook more brain-friendly.

[www.//tinyurl.com/NeuroELT](http://tinyurl.com/NeuroELT)

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We write textbooks. And we're interested in how to connect the things researchers are learning from neuroscience to the English Language Teaching classroom. From our own experiences as writers and inquirers of neuroscience, we have found simple ways to use (or write) textbooks to make them brain-friendly.

- **Go for emotion.** Emotion shapes learning, so make the content as relevant and moving as possible. Using touching stories, facilitating self-disclosure, unleashing creativity, organizing non-threatening competition, fostering learning through discovery all work towards this purpose. People remember what moves them and what is personally relevant.
  - If a task or a topic is not emotionally engaging, skip it. It won't make any difference anyway. Instead, replace it with something more interesting.
  - At times, a textbook page will have a series of questions/topics for students to discuss. Have them look over the questions and rate them for interest, 1-2-3 or 😊-😐-😞. They start with the items they are interested in.
  - Turn it in to a game. Rock,scissor, paper or coin flipping is easy to add to Q&A activities.
- **Give students choices.** Let students choose how to do activities. For example:
  - During listening tasks or tasks where they prepare for a pair- or groupwork, let them decide if they want to do it alone or in pairs. Doing challenging listening tasks in pairs is useful since students usually focus on what they did understand, not what they missed.
  - Naturally different learners take different amounts of time to complete pair- and groupwork tasks. As they work, write options for what to do next on the board:  
*Finished? Choice:*
    - Keep going. Change partners. Do the pairwork again. Do the other page.
    - (Another task, from the Teachers Manual or a resource book)
    - Free conversation in English. *Talk about* (topic related to text).
- **Teach across the senses.** Make sure every class includes something for the three major sensory modalities: visual, auditory and haptic (tactile/kinesthetic [touch & movement]). For specific ideas, see: <http://tinyurl.com/ELTsenses>. Download Marc's *article: Multi-modality teaching*.
- **Personalize.** Almost any dialog, pair or groupwork can be personalized. After the student has done the task as the book presents it, have them do it again, this time using their own ideas and personal information.
- **Increase variety/novelty.** Do at least one "out of the textbook" activity in each class. The *Teacher's Manual* for your textbook may have extra activities. If not, get some resource books. *Cambridge Handbooks*, *Oxford Resource Books for Teachers* and Helbling's *Resourceful Teacher Series* are good places to start. Also, look for ways to build in surprises.
- **Let learners create.** If practical, get class sets of things like colored pencils, magic markers, scissors, glue sticks, colored papers. Invite learners to draw, make posters, create mind-maps, etc. as a way to prepare for a speaking activity. (A personal note on mind-mapping from Marc. When I first heard about this, I was skeptical. I didn't see the need since I already knew how to take notes. But once I understood mind-mapping as a way of notemaking, I found it a wonderfully powerful tool. For more, see <http://tinyurl.com/MHmind-map>.

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- **Repeat to remember/Remember to repeat** Recycle tasks, especially ones that involve personal stories, by doing them again with different partners. Because students are thinking about what they are saying (in contrast with mechanical repetition), it builds memory and fluency. And there's a new partner each time so the story doesn't get old. Spaced repetition is key. 90 minutes – 120 minutes is ideal. But any spaced repetition is better than none.
- **Challenge.** We need the positive stress (*eustress*) of a challenge that we can be successful in. Here are some ways to do that:
  - Vocabulary. Give the topic. Have pairs/small groups see how many words related to the topic they can write (magic markers on big paper is a good way.)
  - Listening. Try to catch 2-3 bits of information beyond what the textbook asks for.
  - Conversation/Dialog practice. Create the next scene. Or, after practicing, close your book. Try to have a 2-3 minute conversation in 100% English on the same topic.
  - Pair-/groupwork. Add your own ideas and vocabulary. Try to say 2-3 extra sentences beyond what the page asks for. Add ideas and questions.
  - See <http://www.eltandhappiness.com/flow.html> for an intro to the concept of *flow*.
- **Break activities into 10-minute (or less) bits.** For longer tasks, do separate stages. E.g., If there are target sentences, do pronunciation work with them (see Language models and the senses at <http://tinyurl.com/ELTsenses>). Give a minute or two of *Thinking time* before the speaking task. Of course, in student speaking tasks, let them keep going if they are engaged. Remember the “choices” ideas for those who finish the main task.
- **Stand up and move.** Sit for 20 minutes and there's a build up in the feet, lower legs and buttocks. Stand and move for one minute and there's a 15% increase in blood (and therefore oxygen) to the brain. Look for chances for students to stand and move like dialogs and finding pairwork and groupwork partners.
- **Praise effort, not ability.** Praise effort and students try harder. Praise ability/intelligence and they feel they don't need to work hard. Many avoid challenging tasks for fear of mistakes.
- **Remember that PPP is not natural.** The standard approach used in lesson design is 1) *Present* target language, 2) *Practice* it in scripted exercises, and then 3) *Perform* with it in a communicative task; thus “PPP”. Unfortunately, this approach does not fit the way our brains work. Just as you don't pick up a pencil and look for something to write, our brains don't work very well at pre-learning vocabulary and grammar for some task that will be revealed to us later. Instead, we are negative feedback machines. We better suited to trying to communicate something, having trouble doing so, and then learning the forms we need to succeed. Obviously, the more natural approach does not fit textbooks, so instead, we need to mediate PPP in these ways:
  - When you present students with language to learn, also tell them how you will expect them to perform with it later. A preview task or demo similar to the eventual performance works better than just telling them the goal.
  - Don't require complete mastery of long vocabulary lists or grammar paradigms (the first P) before practice or performance tasks (the other two Ps). Instead, let students refer back to these lists when they encounter problems and are in the “teachable moment.”
  - Keep the presentation and performance sections as close together as possible, even on the same page, if you are writing materials, or within the 30 minutes in the classroom.
- **Learning is a tool for solving life's problems** Life is a series of problems to solve. Lifespan theorists say we go through age-related stages where key problems dominate each stage. For teens, for example, the key issues are part of what psychologists call: moral development, forming codes of right and wrong. Since the brain evolved as a tool to solve life's problems, and thus let us better exploit the environment, it is particularly well-suited to learning things that help us understand or solve these problems. For example, high school students will probably remember more English from a lesson based on problems with friends than one based on managing personal finances, but the latter might lead to more retention in older adults. Use life-centered topics for your lessons, especially those related to life problems your learners face.

**References and resources to learn more:** <http://tinyurl.com/NeuroELT>