

Brain-Based Elements of Lesson-Planning

India and China Workshops

Center for Accelerated Language Acquisition (CALA)



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Applying what I've learned from brain research is difficult in a college class that only meets 2-3 times a week, but it's good to have the following information as you shape your own lesson plans. So that you can understand my goal, here is a general rule of thumb I try to follow.

Certain activities we do in the classroom aid in the release of chemicals that directly control a student's emotional state. They can open them up to learning or shut them down:

- [Serotonin](#) (well-being, "Ahhhh!")
- [Adrenalin](#) (action, "Yikes!")
- [Dopamine](#) (celebration, "Yahoo!")
- [Cortisol](#) (healthy concern, "Uh-oh!")

Be aware of these chemicals when you incorporate these activities into your lesson plans:

- [Serotonin](#) (well-being, "Ahhhh!")
 - *Framing*: Putting a positive bias on an upcoming activity
 - *Doing rituals*: Creating team names (provides a familiar, safe context)
- [Cortisol](#) (healthy concern, "Uh-oh!") / [Adrenalin](#) (action, "Yikes!")
 - *Doing games/songs*: Processing new material
- [Dopamine](#) (celebration, "Yahoo!")
 - *Celebrating*: Providing positive reinforcement (e.g., 'High 5s' / Hand Slaps)

Give feedback on games, quizzes and journals.

- Feedback should be given at least every 10 seconds and corrects the "error" in trial and error. Trial and error grow dendrites. [Cortisol](#) is produced when they have it wrong; [dopamine](#) is produced when they get it right.