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# Creating Core Memories in the Classroom

M A R C H 1 5 , 2 0 1 6



Dr. Lori Desautels

Assistant Professor in the School of Education Marian University

RELATED TAGS: Social and Emotional Learning, Brain-Based Learning Environments, Student Engagement, Teaching Strategies







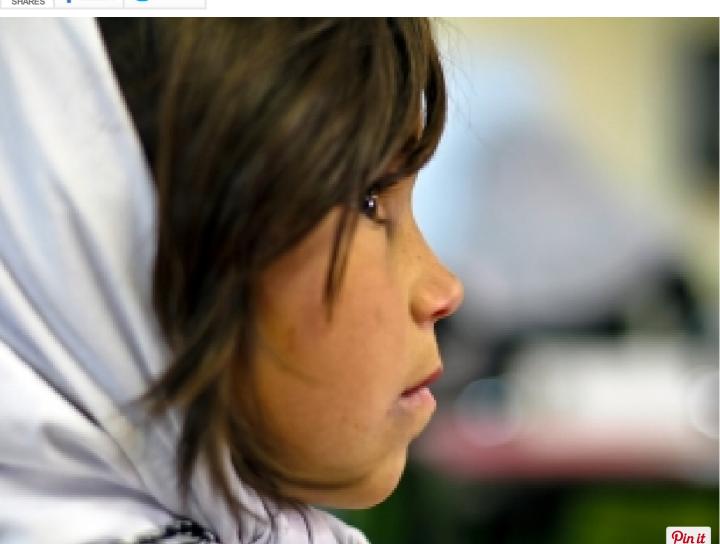


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We all create core memories. When we encounter an experience with heightened emotion, our memory systems remember the experiences because of the intense emotions associated with the event. We know that memories can become diluted or distorted with time and distance. When we remember an event from our past, our brains secrete the same chemicals from the same neurotransmitters called forth when the experience happened, creating the same feelings.

#### Your Classroom's Environmental and Emotional Climate

When students spend many hours in a classroom, they develop an emotional relationship with it. And you have considerable control over the emotional climate of your classroom.

1. What does the physical ecology of your classroom say to the students? Is it inviting? Are there areas for specific activities and enough space to



move around comfortably?

- 2. Is there an area with soft lighting and plants? A few plants and lamps are good for brain health.
- 3. Could you create an imaginary circle of fear, sadness, joy, etc. within a specific area so that students can empty out or reflect on those feelings? Emotions can be an intense distraction to academic problem solving.
- 4. Is there an area for imagination, innovation, choices, vision boards, or travel pamphlets for future careers and vocations?
- 5. Could you create an area in your classroom or school for a brain lab?
- 6. Could you capture and share two or three positive memories that you've noticed about our students (selecting one to three students a day)? Could you model handling a few challenging experiences from your own life and share those with students during a discussion or circle time?
- 7. Make your class a memorable place for your students. Greet them sitting down or from a headstand. Declare an Opposite Day and intentionally change up your typical ways of "doing school." For Do Nows and Bell Ringers, post questions from the list above or show a short video and have students reflect on serving another.

Below are lists of videos to strengthen students' understanding of service, the anatomy and circuitry of their own brains, and the importance of creating positive core memories in your classroom.

- The Sentis Creative Showreel features animated brain videos.
- This edition of Edutopia's Five-Minute Film Festival teaches about learning and the brain.
- The Brain Bank at Harvard depicts interesting facets of neuroscience.
- Neuroscience for Kids features a newsletter and video presentation developed by Dr. Eric Chundler.
- National Geographic's Brain Games shows how to tap into imagination to solve problems.
- Edutopia's Social and Emotional Learning topic page contains resources for SEL skill building.

### Instruction and Neuroplasticity: Creating Strong Academic Core Memories

Research reports that when students are asked to explain something during a lesson, they are better able to connect new ideas with prior causes and effects. These student-created explanations don't have to be accurate. The brain works hard when we feel heard and are close to solving a problem. When we teach what we need to learn, we form stronger memories.

- 1. Have students predict the new topic before you begin teaching it. They can create a series of guesses based on clues that you provide even if the subject matter doesn't feel exciting. Our brains love to predict and anticipate. Implement real objects, make signs or advertisements, create a skit, or wear clothing that hints at the subject area.
- 2. Our brains are wired for patterns and context, which is why we love stories. What kinds of stories can you create that integrate what you're teaching? The narratives can include personal information about the school or class, using students' actual names. A story can make them care and wonder. Stories create anticipation and change up the ways that we traditionally learn.
- 3. Brains hold the stories of our lives, and memories exist as networks of linked cells. These connections between cells thicken with repeated use of synapses. Brains don't typically store facts they store perceptions and thoughts, which are more subjective than facts. Brains hold onto what is relevant, useful, and interesting. Share these facts with students.
- 4. Teach students about the power of their memories. Memories build and weaken quickly. They have two strengths: retrieval strength and storage strength. No memory is ever gone, but its retrieval strength weakens without reinforcement. This is why practicing any new skill or habit is so very important.
- 5. If we lose information or a fact and we work hard to remember it again, we've deepened our learning. So forgetting is actually good for the brain! The harder we work at retrieving a memory, greater its strength will be.
- 6. Teach in images and pictures our brains innately remember them. No matter the subject area, start with a picture and let the guessing begin.

  Create a brain state of anticipation by breaking students into small groups with a **visual clue** about the topic. Students could even act out their clue and then combine the clues from all groups to assemble the lesson's topic or standard. Here are some examples:
- 6.RL.3.1: Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a work of literature and contributes to the development of the theme, characterization, setting, or plot.
- 6.RL.3.2: Explain how an author develops the point of view of the narrator or speaker in a work of literature, and how the narrator or speaker impacts the mood, tone, and meaning of a text.

Choose a sentence or paragraph from a piece of literature and act out, pantomime, show a video clip, or have the small group sit in chairs and dialogue their clue while the rest of the class observes and guesses.

How could you design brain states of anticipation to create academic core memories?



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### Educational Neuroscience Curriculum From "Inside Out"

Inspired by the 2015 film "Inside Out," Lori Desautels integrates educational neuroscience strategies into the classroom.

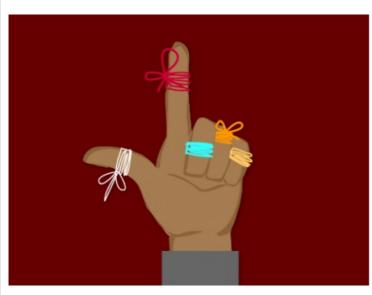




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