

The Role of Emotions in Learning: *Capitalize on It to Improve Learning*



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Reflection Question



Have you ever experienced a situation in which fear (or nervousness) made you unable to do something you were actually capable of?



The Role of Emotions in Learning

- Inadequate learning is correlated with negative emotions and vice versa
- Anxiety lessens the ability to learn
- Confidence in potential for success increases motivation
- Feelings of hopelessness or helplessness decrease motivation for learning

Solving Anagrams

<http://www.youtube.com/watch?v=MTqBP-x3yR0>

Learned Helplessness*

Based on prior experience, the feeling that no amount of effort will bring success

Destroys motivation to attempt a task



Sometimes the chains that prevent us from being free are more mental than physical

*Martin Seligman and Steven F. Maier

Remediation of Learned Helplessness Requires That We:

- Understand the causes
- Help students understand the distorted beliefs and misperceptions that are causing their current deficits
- Provide students the tools to change their behavior and refute their distorted beliefs

The Cure for Learned Helplessness

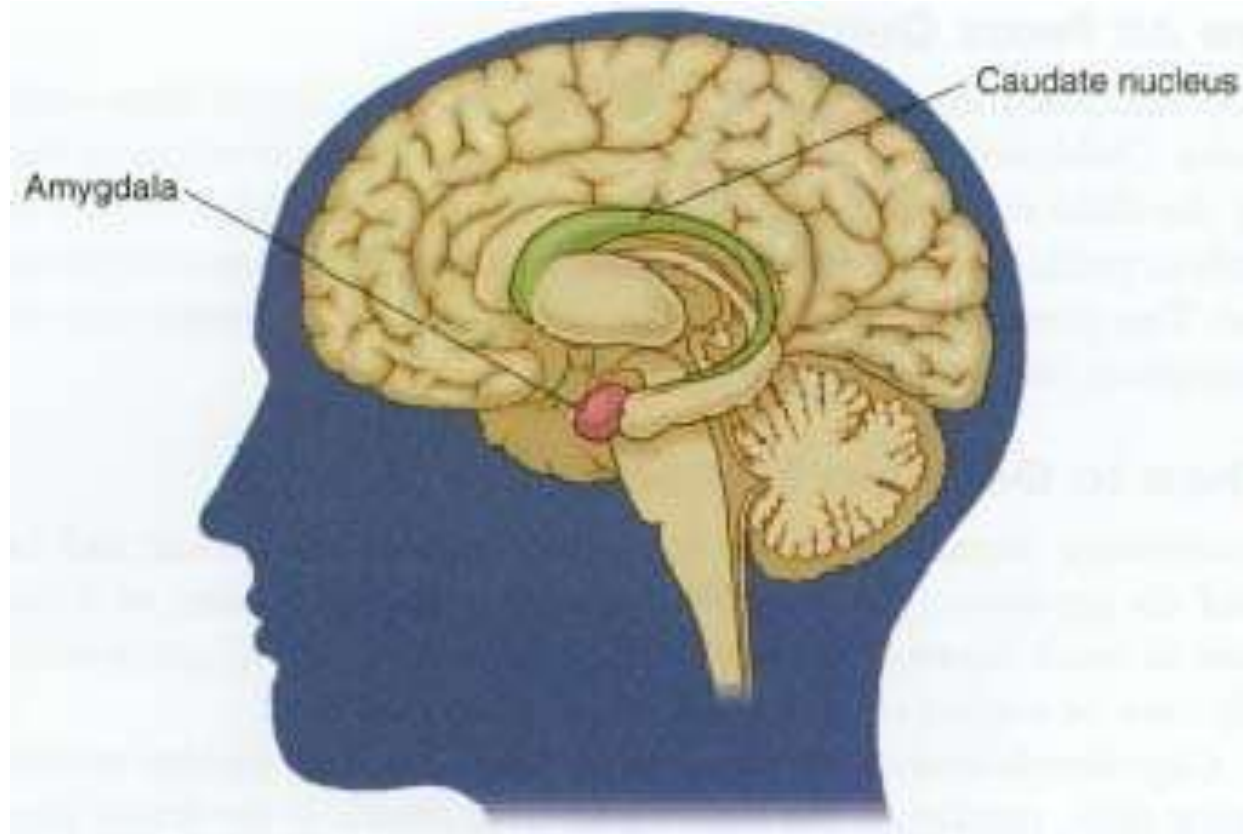
- Understanding your “explanatory style”
- Changing the negative, self-destructive things you say to yourself when you fail
- Making the new statements a permanent part of your explanatory style
- Recognizing that ***perception of ability has the most influence on the amount of effort*** you will expend on a task!

Think/Pair/Share

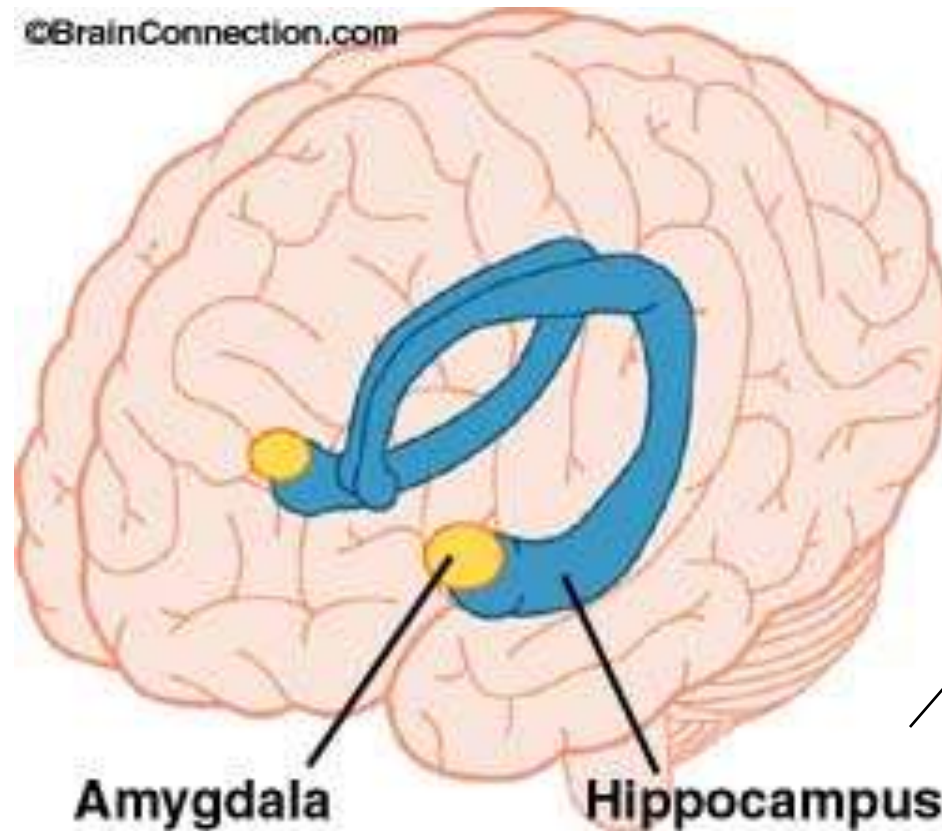
- Think of something at which you were once very bad, but improved considerably
- Think of something at which you were once very bad, but did not improve
- What caused the difference in the result of the two situations?

The Physiology of Emotions

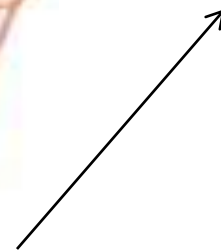
Amygdala: The physiological seat of emotions



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Organizes
factual
information and
sends to long
term memory



Amygdala

Hippocampus

Cortisol receptors are most prominent in the hippocampus

The Role of Cortisol

- Stress increases cortisol production
- More cortisol receptors in the hippocampus
- Presence of cortisol decreases the glucose metabolism in the brain
- Increased cortisol results in temporary memory loss and impairment of long term memory

Ways to Create Positive Feelings and Reduce Anxiety

- Introduce engaging, fun activity if possible. Let students know that everyone can succeed
- Show the tutor's human side
- Demonstrate an active interest in having every student succeed
- Emphasize the importance of effort, rather than prior preparation, in performance
- Help students learn to use their learning style preferences

Can Learning Styles Help Students Learn?

Date: Fri, Oct 19, 2012 at 4:35 PM

Greg,

Good news, I redeemed myself from my first physics exam bomb with a 99% on the exam I took the day after we spoke. I have been reading on the LSU site you gave me and I really like it. **I took their right brain or left brain quiz designed to suggest what learning style best suits you and I landed 50/50 for right-left brain dominance, so that left me with a lot of suggestions...** I've also made myself a new weekly schedule with 1 hour study blocks of all of my subjects in one day... Cutting out the cell phone and recreational internet during study time is something else I really like. Just wanted to give you an update and thank you again for the meeting.

Best, Reg

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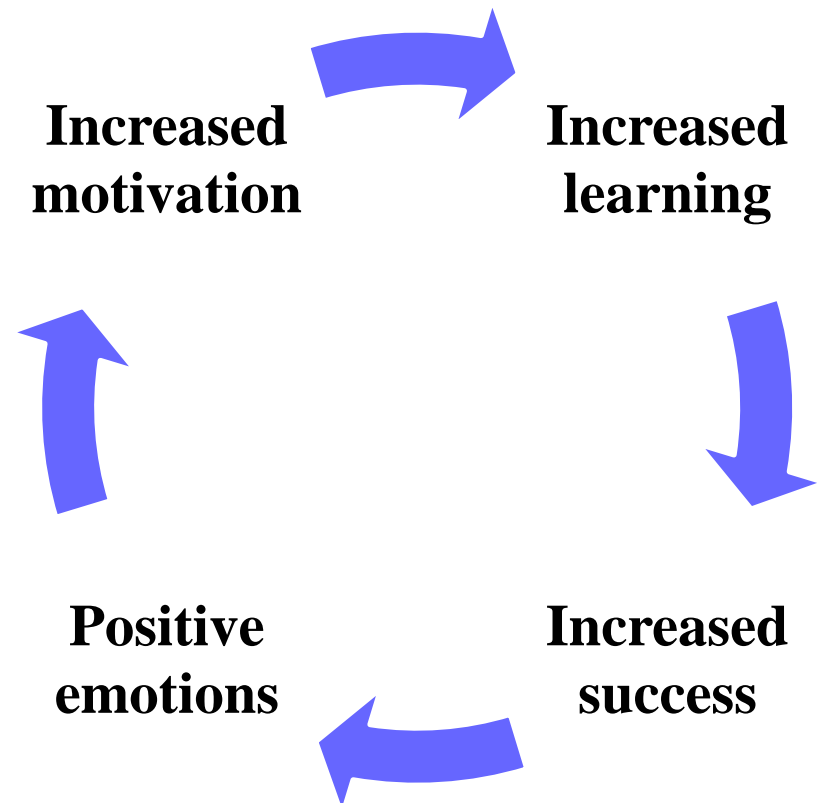
The Role of Confidence in Learning

Students are more likely to attempt activities at which they feel confident they can be successful.

Tutors can give students the confidence to try, and the strategies to succeed!

The Connection Between Emotions, Motivation, and Learning

Positive emotions lead to increased motivation, which leads to increased learning, which leads to increased success, which results in positive emotions.



Motivation

“Motivation refers to the *personal investment* an individual has *in reaching a desired state or outcome*.

(Ambrose et. al, 68)

“In the academy, the term ‘motivating’ means *stimulating interest in a subject* and, therefore, the *desire to learn it*.”

(Nilson, 57)

Three Important Levers that Influence Motivation

- ***Value*** – the importance of a goal (attainment, intrinsic, instrumental)
- ***Supportive Nature of the Environment*** – the instructor is approachable, support is available from peers and others
- ***Efficacy Expectancies*** – the belief that one is capable of identifying, organizing, initiating, and executing a course of action that will bring about a desired outcome

**Sharing Strategies that
Have Worked for Others
Can Be Very Motivational**

Top 5 Reasons Folks Did Not Do Well on Test 1 in General Chemistry

- 1. Didn't spend enough time on the material
- 2. Started the homework too late
- 3. Didn't memorize the information I needed to memorize
- 4. Did not use the book
- 5. Assumed I understood information that I had read and re-read, but had not applied

Top 5 Reasons Folks Made an A on Test 1:

- 1. Did preview-review for every class
- 2. Did a little of the homework at a time
- 3. Used the book and did the suggested problems
- 4. Made flashcards of the information to be memorized
- 5. Practiced explaining the information to others

Email from an EE Professor at New Mexico State Univ.

Received on 10/22/2013

*At the end of a 60 minute learning strategies presentation by the professor, students were given a survey to determine their self-assessment whether they were **using** or not using the strategies. The average scores of the different groups on the first two exams are shown below.*

Reported Use of Strategies	Exam 1	Exam 2
Did not use the strategies	58	54
Used metacognitive strategies	95	80

Put the joy back into learning
by creating a very positive
emotional experience and
motivating your students to
learn!

Watch Student Learning Soar!

Small Group Activity

Describe one way you address the emotional state of your students information into tutoring sessions.



References

- Ambrose, S.A., Bridges, M.W., DiPietro, M., Lovett, M.C., Norman, M.K. (2010) *How Learning Works: Seven Research-Based Principles for Smart Teaching*. San Francisco, CA: Jossey Bass.
- Flavell , J. H., (1979) Metacognition and Cognitive monitoring: A New Area of Cognitive-developmental Inquiry. *American Psychologist*, 34 (10), (906-911).
- Hobson, Eric (2001) *Motivating Students to Learn in Large Classes*. Unpublished manuscript.
- Nilson, Linda, (2004) *Teaching at It's Best: A Research-Based Resource for College Instructors*. Bolton, MA: Anker Publishing Company.
- Raffini, James P. (1995) *150 Ways to Improve Intrinsic Motivation*. New York, NY: Allyn and Bacon.

Final Note

Please visit the websites at www.cas.lsu.edu and www.howtostudy.org.

We have information and on-line workshops that will introduce you and your students to effective study strategies techniques. I wish you great success as you help your students achieve greater academic success!

Dr. Sandra McGuire