

In the Loop

February 2020

Brain Based Learning

The last two decades have witnessed/uncovered many techniques that can deepen learning although these techniques have remained largely unknown outside certain scientific circles. In the past few years, many articles and books have been written on the subject and there has been much media surrounding the findings (for example, Carey, 2014, Doyle & Zakrajsek, 2013 and Oakley, 2014). These findings might help you assist your students in becoming better learners.

- Learning is now known to cause a physical change in the brain. To effect this change, the more a student engages in the learning, through listening, talking, writing, thinking, etc., the deeper the learning will be. Such involves practice which means that the more a student practices, the stronger the area of knowledge will be.
- For learning to occur, students need to understand that they must "prep" their brain. The human brain uses 25 to 30% of the body's energy and a brain that is starving will work less efficiently. Brains that are well fed with proteins and lots of water, function better than those which are starved.
- Research has also shown that sleep is essential to learning. Everyone needs at least 7.5-9 hours of sleep nightly. While sleeping, memories are refined/deepened and unwanted information is pruned. So, it is best to review all valuable new learning right before sleep so that the memories become stable.
- Even though all exercise is good, thirty minutes of daily aerobic exercise is the best thing anyone can do to improve learning. BDNF, a protein that is released during exercise makes it easier for the brain to learn. As well, neurochemicals like serotonin, dopamine, and norepinephrine are released in greater quantities during exercise boosting the brain's ability to focus and concentrate (Doyle and Zakrajsek, 2013).
- The more a learner employs her senses in the learning process, the better the learning. Senses like smell, vision and touch all work to develop new neural pathways, increase recall, and cement new ideas. The Amygdala is the brain's center for emotions, motivation and emotional behavior. When senses are combined with learning, these are stored in the Amygdala thereby which helps with recall.
- To truly have good recall, it is essential to try to retrieve information in a variety of settings. Once your students have read their assignment, they should close the book, pause, and then recall what they have just read. To further reinforce this learning, your students should remove themselves from their current space to a different space and then pause and recall. The more your students do this, the more they will have deep learning.

These are just a few of the ideas that are found in the literature. You might want to take some class time to discuss these findings with your students and then brainstorm ways they can use these ideas effectively over the course of the semester!

References:

Carey, B. (2014). How We Learn, the Surprising Truth about When, Where, and Why this Happens. New York: Random House.

Doyle, T. & R. Zakrajsek (2013). The New Science of Learning, How to Learn in Harmony With Your Brain. Sterling, VA.: Stylus.

Oakley, B. (2014). A Mind for Numbers, How to Excel at Math and Science. New York: Penguin.

Adjunct Faculty & Academic Support

Adjunct Faculty Academic Calendar

February:

- <u>5</u> Last Day to Withdraw with a 25% refund and "W" grade
- 6 State of the University Address Performing Arts Theatre 4:00 PM

Workshops:

- Beyond Grades: Creating
 Authentic Learning
 Opportunities to Understand
 What Our Students Are
 Learning
 12:30 AM SE 203
- 12 Creating Online Surveys: MS Forms
 1:30 PM Z115
- Use Microsoft Stream to Shareand Tag Media9:30 AMZ115

For a complete list of workshops offered for the Fall/Winter Semesters and to register for workshops, please visit svsu.edu/workshops





Prescription Drug Coupons

If you are having difficulty affording the cost of prescription drugs, due to a lack of health insurance or a high deductible amount, you may want to check out a website called GoodRx (www.goodrx.com). This site asks you to enter the drug you need, and the quantity prescribed. You can then compare the varying prices at local pharmacies. Once you select a pharmacy, you will receive a coupon for the quoted price. Take that coupon with your prescription to the selected pharmacy for your discounted price. There is also an app that you can download for the coupons as well. Savings may be as much as 80% off the price, depending on the drug.

Student Motivation and Faculty Feedback

Feedback on student papers, assignments, and exams usually happen after the fact and should contain information which determines a student's efforts in reaching particular curriculum goals. As a result, feedback should be part of the learning process. Researchers have determined that feedback can have cognitive and affective, as well as, motivational dimensions. Cognitive feedback is understood as information given by a teacher regarding a student's performance. This information impacts future student performance. Affective feedback promotes the relationships between faculty members and their students. Both cognitive and affective feedback can result in motivation. If a faculty member wants a correct answer, the motivated student will strive to find the correct answer. If a faculty member wants critical thought, the motivated student will work to think critically. The problem is that feedback doesn't always go well and might result in students becoming unmotivated. If you are interested in learning novel ways to supply your students with motivational feedback, a workshop is being held on Friday, February 3rd at 11:30 in Science East 222. Of course, a light lunch will be served and you will be compensated \$25 for attending. To register go to www.svsu.edu/workshops.

The 6th Annual Teaching and Learning Symposium

The 6th Annual Symposium sponsored by the Center for Academic Innovation will be held on Friday, February 14th from 8:30-2:00 in the Curtiss Banquet Room A. The title for this year's Symposium is *The Three Rs of Learning: Reduce Students' Costs, Reinvigorate Lectures, Research Effective Practices.* The morning session will be devoted to a workshop on Open Educational Resources (OER), a panel discussion for the use of OER and the Dow Professor Grant recipients who will discuss their projects. During the afternoon, various faculty will discuss varying lecture techniques.

For more information about OER and SVSU, please follow this website for an informative short video: https://youtu.be/XgAvKggrWo8

Breakfast will be served from 8:30 to 9:15 and lunch will be available from Noon to 1:00. All adjunct faculty are invited to attend this symposium and can be compensated \$100.00 for a full-day attendance (9:30-2:00).

Contact Ashley Wehner-Palmer at amwehner@svsu.edu or call her at 964-2622 to RSVP for this valuable event. Alternatively, look for a Punchbowl invite coming to your mailbox!