



EDU-SNIPPETS

EDU-Snippets: Summer 2015 Sense-ual Snippets

EDU-Snippets – A column that survives because you - the members - send in your Snippets

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EDU-Snippets is a column designed to let you, the members of HAPS, share your “ways to make sure your students get it.” Since EDU-Snippets began, our members have been continuously amazed at how many teaching and demonstration ideas pop up and are easily transferred from one instructor to another through Snippets. This edition is no exception. So, our topic for this issue is Sense-ual Snippets. Hopefully you will be able to utilize what our colleagues have submitted. Hopefully, too, some of the ideas presented here will spur you on so that you can either make alterations to fit your own needs or spark your imagination so that you can come up with your own Snippet ideas, which you can then submit for publication.

I. Conference Inspired Snippets

A. Direct Inspiration

Janice Fritz (St. Clair County Community College, jfritz@sc4.edu) came up with a great idea after the Conference. Maybe it would be better to say that a number of points all came together for Janice. As Janice says...

I was inspired by several of the conference speakers to add a new type of activity to my repertoire. After considering the visual literacy of my students in light of Peggy VanMeter’s update seminar and the cognitive level of my typical activities using Janet Casagrand’s method for “Blooming” questions, along with an appreciation of the extra classroom time I have as a result of flipping my classroom, I have begun asking my students to create visual representations of the information provided in lecture videos.

For example, after hearing me talk about the mechanisms regulating salivation, I give them a drawing of a head and ask them to create a figure illustrating some aspect of salivation. In addition to involving a higher-level cognitive processing, the artistic presentation provides an opportunity to teach students how to integrate text and visual information.

This is a great activity for a flipped classroom because many students can repeat

the information but struggle to represent it in a different modality. Peer discussion and instructor intervention in class keep the frustration from becoming overwhelming.

B. Indirect Inspiration

The Conference was held in San Antonio and who can think of San Antonio without thinking of the Alamo? While no specific Snippets dealing with the Alamo were submitted, there was a lively discussion on the HAPS-L list about using the Alamo itself as a teaching tool. For instance, consider cellular defenses, the immune system as a whole, the invasive diseases, and so forth.

II. Musical Snippet

Here’s an interesting and creative Snippet from (Mia Ray (Trinity Washington University, raym@trinitydc.edu)).

Can music or poetry assist students in improving their understanding of key learning objectives in anatomy and physiology?

For the past few semesters I have assigned my students the task of creating poems or songs on cellular anatomy and components of the axial and appendicular skeleton in an attempt to answer just that.

In this assignment students were given three to four weeks to complete and memorize their work. They were encouraged to create simple poems or songs that would be easy to memorize.

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When I compared the test performance on this subject matter to previous courses that were not given this assignment, I saw that students who completed the assignment showed increases in test performance on subject related questions. In addition, the test performance of students who did not complete the assignment were comparable to the performance of previous semesters.

All in all I saw that poetry and music in this case vivified student learning and creativity, as well as increased the comprehension and retention of information related to cellular and skeletal anatomy.

III. Fainting Snippet

Meanwhile, John Pellegrini (St. Catherine University, jjpellegrini@stkate.edu) sent a very informative Snippet that perhaps we should all be aware of. We can certainly share this knowledge with the students.

At the beginning of the 70s television show Quincy M.E., the medical examiner gleefully smiles as he grosses out police cadets at an autopsy. Down go the young men in blue, passing out from disgust. My teenage self found it funny. Now that I teach anatomy and physiology, I don't laugh. I've seen students hurt themselves as they faint and fall, the wooziness can become contagious in the room, and the whole experience is unsettling (perhaps as a reminder of mortality). Consequently there are two labs that I dread each year: the cadaver lab and the blood lab. I give students many warnings, but I don't think there is a way to completely prevent it. If you teach these labs to many students over many years, a few will pass out.

Vasovagal syncope is the term given to this form of fainting. Vessels dilate, the vagus nerve signals the heart to slow down, and heart rate and blood pressure fall. The brain does not get enough

oxygen, and so consciousness is lost. Why would the sight of blood or innards trigger this? It's not clear. Some theorists argue that it's a holdover from an adaptation to primitive warfare. When our ancestors passed out from seeing gory battle scenes, they effectively played dead, and adversaries passed them by. Another idea is that the response protects against excessive bleeding. When you see your own blood or bone, slowing the heart and lowering blood pressure might decrease the amount of blood that will flow through a wound before clotting occurs. I think about this type of fainting as a disgust response (pathogen avoidance through nausea) that just gets carried a bit too far.

But whatever its function is or was, syncope sure adds drama to my classroom. The victim often goes down quickly, without warning. Sometimes the student has jerky limb movements. There is a commotion as lab partners try to figure out what happened. Some classmates are unnerved and others step into the role of caregiver. I tend to have both reactions (not a great combination, I realize). A few students in the room seem blissfully unaffected and will surprise me with questions while I'm trying to administer first aid ("Do we need to know how to spell hematopoiesis for next week's quiz?").

In other instances, a student feels the nausea coming on gradually. When I see someone in lab looking pale and disgusted, I suggest that person sit on the floor for a little while, with the head between the knees. This has generally worked well, except for the time a student said she had recovered, and so I helped her up, hitting her head on the fire extinguisher that was mounted on the wall above her.

These experiences leave me wondering many things. What exactly causes this type of fainting in certain people? What do our reactions to blood or to seeing someone faint say about empathy?

How do EMTs and emergency room workers stay calm and effective? Besides giving warnings about blood sugar, layered clothing, and staying in touch with how you feel, how else can I (we) prevent this? I am not an advocate for virtual labs, but perhaps students should go through online desensitization before coming to these labs. Some psychologists train clients to gradually increase their exposure to fear-evoking stimuli, and their clients that struggle with fainting are encouraged to tense their muscles (increasing blood pressure) while viewing images of such things. Next year I might suggest this to my students, and maybe I'll make myself watch some videos of young people fainting.

IV. Challenging Snippet

Have you ever been looking for a challenging question designed just to see how your students are thinking? A question with no absolute answer that can be used for any number of purposes from thought analysis to bonus points to extra credit to a semester's challenge? Here's one such question – and you are invited to submit your own so that EDU-Snippets can print them.

Some people say that humans are really aquatic animals that just happen to live on land. Using the (xxxx) system(s) of the body, explain why you agree or disagree with this statement. Be specific.

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