

W H EALTH SCIENCE Educator



March 2021

Tips, ideas and opinions for Health Science Education

TRUE GRIT EDITION



A free publication for professionals who choose to make a difference in the classroom – or working from a home office.

You inspire the heroes of healthcare!

If you can't fly then run, if you can't run then walk, if you can't walk then crawl, but whatever you do you have to keep moving forward.

– **Martin Luther King, Jr.**

★ EDUCATION NEWS: **PERSEVERANCE: BECAUSE CHARACTER COUNTS**

Health Science teachers are masters of content instruction. We understand instructional objectives and focus on achieving classroom goals. Our standards are high for the attainment of medical knowledge, and even higher when it comes to skill development.

So...what's missing?

The truth is, many of us struggle with teaching the character traits and professionalism that students need to succeed in high school, college, and in the health professions. So, let's talk about that.

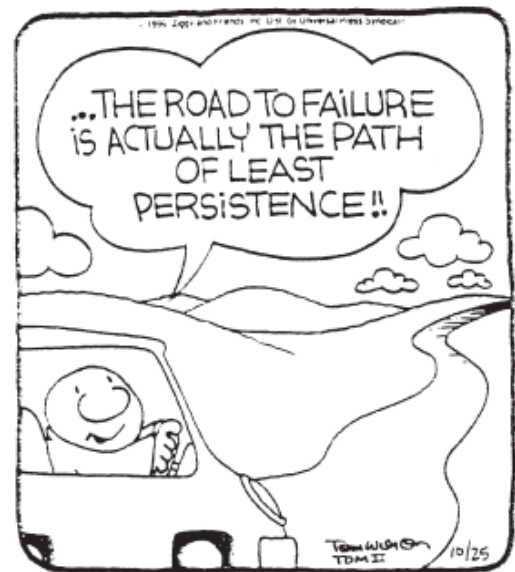
There are many different behaviors that make up essential character traits and skills, but for this newsletter, we are going to focus on one skill in particular - perseverance.

What is perseverance?

Perseverance keeps us trying, even when the going gets tough. Some resources call it grit. Other call it resilience. No matter what you call it, perseverance means not giving up. Jennifer Bashant, PhD describes it as "The quality that enables individuals to work hard and stick to their long-term passions and goals."

That certainly sounds like a quality our students need.

And the research data backs it up. Studies show that perseverance and self-discipline are better predictors of success in college than the SAT or IQ tests. (Duckworth and Seligman 2005, 2007) Perhaps we should take a closer look at how, and why, we teach our students to persevere.



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★ **NEWS: Dopamine and Perseverance**

Dopamine is known as the feel-good neurotransmitter. This important neurochemical boosts mood, motivation, and attention, and helps regulate learning and emotional responses.

Perseverance is the key to success in the health professions.

Think back on your teaching journey. Almost every health science teacher will tell you that the road from healthcare professional to classroom teacher was a bumpy one. In fact, most will admit that there were times when they thought about quitting.

But you didn't quit, did you?

So what made you stick around? Perseverance. The same character trait that you will want to develop in your students.

Neuroscientists have known for years that dopamine is linked to positive behavior reinforcement and the satisfaction you get when you accomplish a goal. As you progressed in your teaching career, you had small victories, and with each victory you got a squirt of dopamine.

You stuck with teaching long enough and experienced enough dopamine rewards until you no longer thought of teaching as painful. In fact, you began to think of teaching as something you want to do. And you like it.

Dopamine was the chemical messenger that kept reminding you that you can do this. Those reminders are what fueled you and kept you from giving up. That's perseverance.

Neuroscientific research shows that higher levels of dopamine might stimulate the internal drive some people have to persevere while lower dopamine levels cause others to give up. If that's true, wouldn't it make sense for us to implement classroom strategies to help our students:

1. Produce more dopamine?
2. Practice perseverance?



Help Your Students Develop Perseverance

Here are a few ideas for you to use to help your students develop their ability to persevere.

Tell them it's OK to struggle.

In fact, when presented with new information, it's normal! Explain how good they'll feel when they finally get it. And be sure to let them know – you still struggle sometimes.

them know that mistakes are NOT failures.

They are part of the learning process.

Focus on long-term goals.

Health science education is a marathon – not a sprint. The goal is not to pass a test. The goal is to learn what is needed to successfully deliver quality health care.

Make lists and set deadlines,

Teach your students to make lists of what they want to accomplish each day. Every time they check something off the list or meet a deadline, they'll receive a hit of dopamine.

Share your love of learning.

Teachers who love teaching teach their students to love learning. Take the time to point out and praise how much they have learned. Show them how happy you are when you learn something new. Remember, you're their role model.

Play more games in your classroom.

Every time your students solve a problem or accomplish something, they get rewarded with dopamine. If nothing rewarding happens in class, dopamine reserves dry up. Playing word games and solving puzzles not only flexes their mental muscle, it keeps the dopamine pumping.

HEALTH CAREERS LOGIC

Five patients had appointments at the Artista Hospital and went to five different departments – the Pharmacy, Laboratory, Radiology, Rehabilitation and the Cardiology Lab. Complete the chart below using the following clues and your knowledge of the health professions.

1. Leonardo’s appointment was for ADL training.
2. Mona needed her Lasix refilled.
3. The exercise physiologist saw her patient right before the occupational therapist saw his.
4. The radiologic and medical technologists saw the first two patients.
5. Ruben had the 9:00 am appointment.
6. Vincent’s appointment was between Mona’s and Leonardo’s.
7. Lisa had a CBC.
8. The 11:00 am patient had a stress test.
9. The radiologic technologist performed an upper GI series.

	8:00 am	9:00 am	10:00 am	11:00 am	12:00 pm
Name					
Department					
Health Professional					
What?					



TEACHER DISCUSSION: USE LOGIC PUZZLES TO TEACH PERSEVERANCE

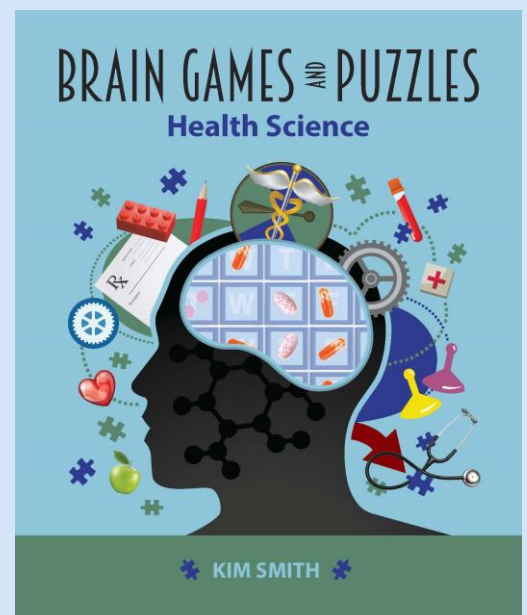
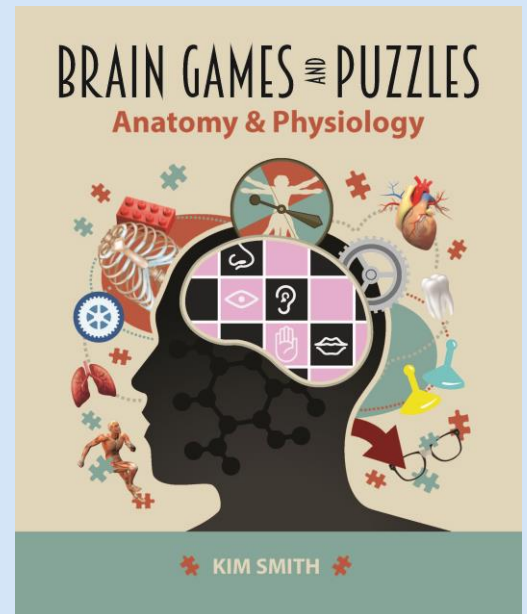
On page 3 of this newsletter you will find a Health Careers Logic puzzle.

1. Start by allowing your students to work in pairs. Having a partner is usually less intimidating, and two heads are better than one.
2. You could make it EASY by doing the puzzle in front of the whole class, but easy is not the goal. Developing persistence is!
3. Encourage students to think. One small bit of information can help lead to new discoveries.
4. Here are a few hints just for you - but use caution when sharing this with your students. Their reward will be greater when they stick-to-it and figure it out themselves.
 - a. Start by making lists: The departments are given to you in the instructions at the top of the page. List the names (Leonardo, Mona, Ruben, Vincent and Lisa) Continue to pull out the health professionals and the “what?” from the clues.
 - b. Two clues are gimmies. Ruben is the 9:00 am appointment and the What? for 11:00 am is a stress test. Now you already have two boxes filled in.
 - c. Vincent is between 2 other people, and the only place that can put him (since you already know Ruben’s appointment time) is 11:00 am.
 - d. Since Vincent’s appointment was between Mona’s and Leonardo’s, the only time left for Lisa is 8:00 am. AND, she had a CBC.
 - e. We know from our HSE class that a CBC is performed by a medical technologist in a lab, which means (clue #4) that the 9:00 am appointment involves the radiologic technologist in radiology (clue #9) performing an upper GI series.
 - f. With your knowledge of health careers and the process of elimination, you can figure out the rest of the table...and so will your students!

Source: *Brain Games and Puzzles: Health Science*

	8:00 am	9:00 am	10:00 am	11:00 am	12:00 pm
Name	Lisa	Ruben	Mona	Vincent	Leonardo
Department	Laboratory	Radiology	Pharmacy	Cardiology Lab	Rehabilitation
Health Professional	Medical Technologist	Radiologic Technologist	Pharmacist	Exercise Physiologist	Occupational Therapist
What?	CBC	Upper GI Series	Lasix	Stress Test	ADL Training

Games and puzzles, especially logic puzzles, are helpful tools for teaching perseverance.



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The Health Science Educator, published by CreativEd Services in collaboration with NCHSE, is a free monthly newsletter for health science professionals at the middle school, high school and collegiate levels.



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