

It's time to take a less traditional approach

"Education is what remains after one has forgotten what one has learned in school." Albert Einstein

There are several EMT and paramedic schools across the country, each doing things slightly differently. However, some techniques remain pretty universal—students buy textbooks, they attend several hours of lecture, a few hours of lab, they must memorize drug dosages and skill sheets, and they practice their skills on ride-alongs and clinical settings. This is an efficient approach, and for some it is very effective. As a teacher though, I've begun to wonder if it's the most effective approach. Why do only one or two students stand out when all of them have the same opportunities?

EMS Education 2.0

Many educational institutions are utilizing the same didactical approach to teach EMS material as they were prior to the technological advancements of the last couple of decades. **It's time to stop teaching the same old thing, the same old way, because that's the way it's always been done.** It's time to start asking some new questions: Should we have the students listen to lecture at home, and do homework at school? Is memorizing really effective? Is there a better way? **The only question about any new technique is "Is it effective?"** If it is, then work to make it more effective. If not, then discard it for another strategy.

Should Students Listen to Lecture at Home, Do Homework at School?

The first time I heard this strategy, I was perplexed. I mean, that's why they call it homework, because it's meant to be done at home, right? But the man I was listening to was Salman Khan, creator of the Khan Academy (khanacademy.com), which is leading the way in free online education. Sal is an excellent educator, and his method of teaching is simple. He provides very short tutorials—**about 10 to 15 minutes at most**—and lectures as he draws out the material. His videos are watched by millions of people who are looking to learn new things, **not students who are forced to listen to a lecture they'd rather sleep through.** *Be sure to check your videos for 'wake-up' appeal...not monotone, questions asked throughout, pauses for students to think, times for students to pause video and answer a question or work a problem before continuing, etc.*

Sal is on to something. There are already many different EMT and paramedic schools that have incorporated blended educational programs that include an online or distance learning tool. Many EMS agencies even utilize distance learning for continuing education. Let's take that to the next level. Why not use Sal's model, and **allow students to learn the lectured material at their own pace through their computers.** Why have dozens of lecturers teaching the same lecture to different students several times, when you can have one really good lecturer teach it once for every student? The **classroom could then become a workshop for reflection and discussion.** *Which is where real learning (deep learning) occurs.* Teachers would actually teach again, and not be bound by the restrictions of slideshows. The average attention span is relatively short, especially nowadays, and looking at projected slides while someone speaks is not exactly a great way to maintain the focus of the collective. By creating short educational tutorials, the student tends to stay more engaged.

Is Memorizing Really Effective?

Best selling author Seth Godin asked a question at a TED conference on youth education: "If you wanted to teach someone how to be a baseball fan, how would you do it?" He went on to ask if the audience would have the person read a textbook, memorize the batting averages of the top players and take a test on the history of

baseball. He made an excellent point—we tend to want to learn about things we are interested in. As content experts it is our responsibility to present the content in an interesting and relevant manner. To do this, we must KNOW the students we are dealing with (know your audience!) He also said memorizing is useless and all tests should be open-book. Wow, now that's a bold statement.

Is memorizing really effective, or even appropriate? Perhaps in EMS there are a few things that should be memorized, such as cardiac arrest medications, CPR ratios, anatomical airway structures, etc. These things must be known quickly in an emergency, and they are best refined through skills practice in a laboratory setting. (...or discussion groups, projects, problem solving exercises, videos, etc) However, for the less-emergent medications, treatments and procedures, students should be taught how to double-check their work. If they're taught that they must have every drug dose memorized, will they be willing to look it up when they feel uncertain on a critical call? There is no more benefit from having a medication memorized and being uncertain during an emergency than there is from having a laminated drug dosages chart on the wall of the ambulance action area. Having such a chart could provide reassurance during a stressful situation. The focus here is not the paramedic's skill level, it's the patient's safety. Currently, operating rooms around the world are now benefitting from the checks and balances systems created by the aeronautical industry. If a surgeon is not too good for a checklist, why should a paramedic be?

Is There a Better Way?

Yes, and some of them have already been mentioned. It's been said that the best way for a manager to discover ways to improve his business is to ask his employees. Perhaps the best way to improve an EMS educational program is to ask the students what they think. Implement (Just do it...action!) new ideas, and consistently review and improve (I-CAN) them. All this requires moving out of our comfort zone. Because of the stress associated with teaching, we tend to teach the way WE are most comfortable with and not necessarily the best way for students to learn. The biggest motivator for moving out of our comfort zone is ACTION...just try it! Collaborate with colleagues on effective techniques, then try them.

Some interactive teaching ideas:

- When class is finished early, ask difficult questions and allow the students to look up the answers on their smartphones. First one with the correct answer is allowed to leave.
- Use social media to engage students. Each class could have their own Facebook page. Each instructor could have their own Twitter account where they post difficult questions. There are several EMS blogs that provide free education.
- Have a “stump the teacher” contest, where students are encouraged to look up and pose difficult questions.
- Online chat rooms open up discussions the more reserved students may have avoided in classroom settings.
- Videotape good and bad skill performances alike, and debrief them with the students.

http://www.emsworld.com/article/10951849/taking-a-new-approach-to-ems-education?utm_source=EMS+Special+Focus&utm_medium=email&utm_campaign=CPS130619009

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