

EMS[®] MAGAZINE



By: J. Harold "Jim" Logan, BPS, EMT-P/C

Dead Man Teaching

A unique educational experience in Tennessee—complete with cadavers—brought all the domains of learning together

Larry Coleman was my high school history teacher. Back then I wasn't easily impressed or inspired when it came to education. But Mr. Coleman taught differently than what I'd been exposed to before.



Over 200 Tennessee educators participated in this unique interactive experience with complete cadavers and simulators.

Keep in mind, this was before PowerPoint, SMART Board and videoconferenced guest lectures from subject matter experts. Mr. Coleman had a chalkboard, handouts and a textbook. History and government can be boring subjects, especially for a group of 17-year-olds. Mr. Coleman realized this, and instead of sitting behind his desk or standing at the chalkboard with a pointer, he engaged his students—he performed. Think historical recreations—standing on the desk, reciting a famous oration by Kennedy or Lincoln, bringing tired textbooks to life with engaging tactics that gave his students glimpses into historical events and made the contents of the text veritably jump off the page. Thank you, Mr. Coleman.

EMS providers can be similarly difficult students to reach. They are some of the hardest people in the world to impress and inspire. Most of that is because they've seen so many things most folks haven't. As well, many EMSers are "Type A" personalities: intense, competitive and impatient. In their off time, they're often involved in activities most folks wouldn't want to be a part of.

And EMS educators are worse. They've been there, done that, and now are teaching

it. As they mold young minds, educators may fall into a rut, using the same old methods, and find themselves sitting at that desk or standing at that dry-erase board, or worse, simply reading in a monotone what shows up on the next PowerPoint slide. How, in Mr. Coleman's name, can they avoid such a fate?

BRINGING LEARNING TO DEATH

The Tennessee Emergency Medical Services Education Association (TEMSEA) holds its conference each July, a challenging gathering of providers and educators from across the state. The leaders of this organization recognized the inherent problems with reaching EMS students, and in the past few years have attempted to raise the bar for their members. This year, with the help of the Vidacare Corp. and Precision Surgical, the local distributor of Vidacare's EZ-IO intraosseous infusion system, TEMSEA was able to take conference participants into the classroom of the future.

Now, cadaver labs and autopsies are nothing new as teaching tools in medicine. However, in EMS, opportunities to participate

in such events don't come around very often. Even when they do, they're frequently "look but don't touch" types of situations, held in conjunction with conferences at major universities or off-site hospitals. Attendance is usually limited by a small number of available seats. TEMSEA leaders realized this and wondered how they could take this type of instructional tool to the next level.

They assembled a team and began planning. Within a few months, TEMSEA educators found themselves at the University of Texas Health Science Center in San Antonio. There, under the guidance of EMS educator Scotty Bolleter, the idea of a procedural anatomy lab came to fruition, and we began the process of creating an experience that would impress any Type A EMS provider or educator. Better yet, what we were doing could be recreated in any educational setting across the United States.

The possibilities were exciting, and made me think back to Mr. Coleman. As he brought his lessons to life, so would we stir our students—by bringing their lessons to death.

After an intense period of training and planning, TEMSEA reached out to the

Medical Education and Research Institute (MERI), a nonprofit medical teaching and training facility in Memphis. MERI's motto is, "We learn by doing." It supports state-of-the-art, hands-on education for physicians, nurses and other medical professionals from around the country and world. It was a perfect fit: Through its anatomical donors, MERI could provide unembalmed cadavers for TEMSEA's use in a hands-on procedural lab where EMS learners could put various techniques and skills to the test.

This lab would be further intensified through combination with a lab simulation center. The educational strategy combined anatomy, physiology, procedures and simulated situational training. The interactive high-fidelity manikins pushed the caregivers' performance to a new level.

BRAIN SYMPHONY

With 260 participants, the inaugural procedural anatomy lab held at the TEMSEA annual conference let students utilize their skills with a better understanding of anatomy and how each procedure they attempted impacted patient care. It gave new insight to patient assessment skills. With hands-on airways, chest walls, great vessels, skeletal muscles and other organ systems, the cadavers helped teach important lessons: "This is why" and "This is how." With every procedure and skill practiced, the unselfish donors who gave themselves to science helped enhance the understanding of the next generation of caregivers.

The high-fidelity simulation manikins came to life as well, audibly voicing their complaints as students applied treatment modalities according to findings from past histories, vital signs, signs and symptoms, and monitoring equipment. The procedural anatomy lab brought all the domains of learning together. The cognitive, psychomotor and affective were in a sweet harmony best expressed by the president of the National Association of EMS Educators (NAEMSE), Chris Nolette, who described the lab as a "hands-on, minds-on" event.

"The Tennessee Emergency Medical Services Education Association brought all the essential components together in their cadaver/simulation lab to make the experience truly one of a kind in EMS education," Nolette says. "Students did more than observe—their brains were provided



Ready for the next challenge, TEMSEA instructor manages a "sucking chest wound" with this Hi-Fidelity Human Simulator.

multisensory immersion as they touched, participated and engaged with instructional staff in a unique and challenging learning environment. This whole-brain approach took into account that learning is an orchestrated neural symphony of stimulating many areas of the brain... TEMSEA played a perfect brain symphony, and it will resonate with Tennessee practitioners and educators for years to come."

As another veteran of the field and classroom put it, "I've been involved in EMS for 23 years, and this is the best educational experience I have ever had."

Another unique aspect was the involvement of vendors in the laboratory. Their presence let them see what we do in EMS firsthand and be involved in the educational

experience as instructors and educators for the products they represented. Instead of demonstrating on a table in a convention center, they stood shoulder to shoulder with paramedics and educators, using the tools of the trade.

TEMSEA President Phillip Sanderson summed up the experience by quoting leadership expert John Maxwell, who famously said, "They will not give you their hand until they know your heart."

"Over the past several years, we have committed to giving our members...something new and something to take with them," Sanderson told attendees. "We gave them some new tools for their toolbox and a vision that has both hope and a caring heart for the future of our organization and profession."



Memphis Fire Department instructor and TEMSEA member Charles Spratlin manages a difficult airway as the patient “crashes.”

ENGAGEMENT

As educators, we sometimes get caught up in coordinating and teaching the activities we’re involved in. Many times we overlook our own opportunities to learn something new. Watching those who joined us in the cadaver lab, I saw something that wasn’t apparent to the participants: engagement. The focus was intense as each educator touched, explored and gained a new appreciation through immersion in this challenging new environment. You could see the wheels turning: *How can I take this back to my classroom and engage my students to learn?*

Kirk Harris, an EMS educator and paramedic of over 30 years, was among those energized. “You can see it in a book or on a slide, but

this lends a new perspective on what we do in EMS related to skills and patient care,” Harris says. “This was a unique experience I intend to take back to my faculty and students.” Specifically, Harris plans to incorporate a procedural anatomy lab into the critical care paramedic course at Tennessee’s Roane State Community College, where he is the director of continuing EMS education. In addition, he intends to reach out to Lincoln Memorial University and its medical school in hopes of combining medical students and paramedics in a continuing education track based on the procedural anatomy lab concept.

CONCLUSION

Dr. Martin Luther King, Jr., once said, “If you are going to be a street sweeper, then

be the Michelangelo of street sweeping.” By taking EMS education into a more interactive future, TEMSEA is serving as a Michelangelo of EMS education.

If you would like more information on the “classroom of the future,” contact Phil Sanderson at empeducator@hughes.net. ■

A 24-year veteran of fire-based EMS, J. Harold “Jim” Logan, BPS, EMT-P/IC, is a lieutenant firefighter/paramedic for the Memphis Fire Department, specializing in EMS consequence management and quality improvement. He’s an EMS instructor coordinator and fire instructor for the Memphis Fire Department and state of Tennessee, and for more than a decade has served as a rescue/medical specialist and medical coordinator for FEMA’s Tennessee Task Force 1. Contact him at jim.logan@memphistn.gov.

“This is the best educational experience I have ever had.”