


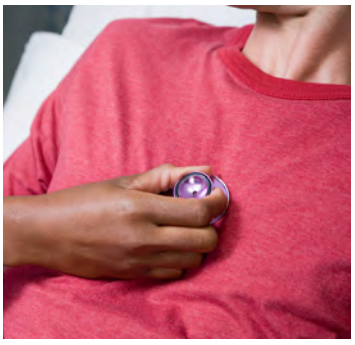

EMS Strategies for Success

Workshop Agenda

Bridging Theory and Practice:
Transforming Instruction

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Workshop Agenda and Learning Outcomes

Introductions and Overview

Part 1: Teaching Adult Learners

Participants will be able to:
- Adapt instruction to meet the needs of adult learners.
- Apply adult learning styles to the creation of classroom activities.
- Identify instructional goals, learning objectives, domains of learning, and student characteristics and their implications for learning.

Break

Part 2: Designing Learning Experiences

Participants will be able to:
- Apply elements of motivation to teaching.
- Structure content for student exploration.
- Select content formats that address learning styles.
- Build active components into lectures and demonstrations.
- Apply elements of student involvement to the design of active learning activities.
- Apply elements of closure and design activities that transfer learning.

Break

Part 3: Creating Engaging Activities

Participants will be able to:
- Create and integrate simulations into the learning environment.
- Create and integrate discussions into the learning environment.
- Create and integrate games into the learning environment.
- Integrate interactives into the learning environment.
- Describe and apply ideas for successful instructional development.

Challenge for Teaching and Preview of Phase 2

Adult Learners: Adult learners are...

Adult learners come to the classroom with a different set of needs and expectations than children and young adults.

Adults learners are...

Questioners. Adults learn based on need. They want to know that what they are doing matters (a) in real-life and (b) on the test. They want to see relevance.

Example*: Introduce a problem-based activity with a real-world example and/or test item. Point out that you need to know the vocabulary of the human body in order to describe patient symptoms.*

Self-Directed. Adults need to be in control of the learning process. They want to make decisions about their learning. Whenever possible, instructors should be facilitators rather than information givers.

Example*: When possible, provide choice and opportunities to discover content. Rather than lecturing about drug interactions, provide students with a fact sheet and a set of empty bottles and other items to discuss. Then, check and comment on their work.*

Experience Rich. Adults come to class with a wide range and depth of experiences. Use this knowledge as a frame of reference for new learning, while remembering that students may come with misconceptions.

Example*: Ask for students to share experiences and concerns while looking for predispositions and bias.*
Discuss student experiences and thoughts about child abuse before describing the signs. Looks for preconceived ideas about this topic.

Real-World Focused. Lecturing doesn't equal learning. Students need to be active to learn. They want to see the connection to real-world situations. They need to build new experiences while constructing knowledge.

Example*: Build authentic activities, questions, and discussions into lectures. Rather than discussing abstract examples, focus on a specific situation such as a tractor tipping over on a field worker.*

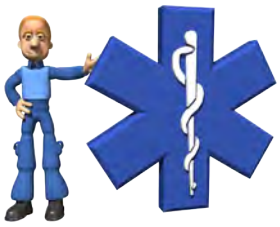
Task-oriented. They are life-centered and want to apply information immediately to real-life. Don't separate theory and practice. Instead, build bridges with problem-based learning.

Example*: Show a real-world application for each chunk of content or concept. Introduce the signs of stroke using the FAST method and match it with a role-playing activity. Use "Act FAST" for recognizing signs of stroke.*

Internally Motivated. Increased satisfaction, self-esteem and quality of life are more important that money and promotions. Show students why course content matters.

Example*: Provide praise, opportunities for success and real-world connections. When introducing a strategy, talk about how many lives are saved by EMT intervention such as the YouTube EMT Saves Lives.*

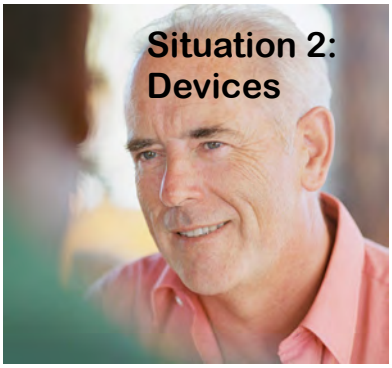
Adult Learners: Adapt Instruction for Adult Learners



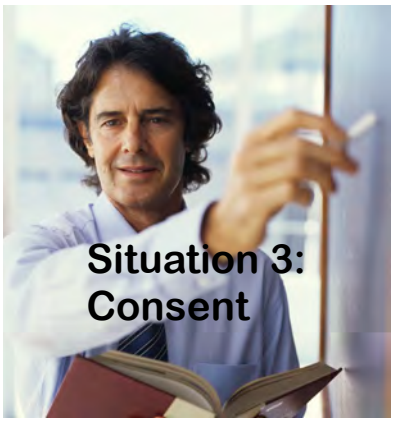
Directions:
1 - Read all three instructional situations below.
2 - Pick **ONE** of the six characteristics of adult learners (previous page):
Questioners • Self- directed • Experience Rich •
Real-World Focused • Task-oriented • Internally Motivated •
3 - Think about how you would adapt instruction to address that characteristic.
4 - Your instructor will direct you to move into one of three groups to discuss your ideas.

Situation 1: The instructor uses PowerPoint bullets to list facts about concussions then gives students a handout to read.

Situation 2: The instructor talks about how to use a manually triggered ventilation device then gives a multiple choice quiz.



Situation 3: The instructor writes the types of consent on the chalkboard, defines each type of consent, and tells students to take notes.



Adult Learners: Adult Learning Styles

Since the 1970s, educators have used learning styles as a way to address the individual needs of students. Most students have preferences for how they learn, however recent research questions whether tailoring instruction to individual learners is effective. ***The bottom line…*** Cast a wide net of options to engage learners with different preferences and learning styles.

Let's explore FOUR areas where learning styles can be applied to developing effective, efficient, and appealing instructional materials that reach all of your learners (Adapted - Felder and Silverman).

1 - Preferences

What type of information does the student preferentially perceive? Which do students like best? Match how students perceive with corresponding content.

- **Sensing learners** - *concrete*, practical, oriented toward facts and procedures (sights, sounds, sensations). They like solving problems based on facts. They don't like surprises. They are slower at translating symbols like words, so may time out on tests.
- **Intuitive learners** – *abstract*, conceptual, innovative, oriented toward theories and meanings (possibilities, insights, hunches). They like innovation, variety, creativity, and playing with ideas. They are impatient with details and make careless mistakes.

Example*. Provide a balance of concrete information and abstract concepts. Provide practical examples of theories. Balance practical problem-solving methods with fundamental understanding. Provide explicit illustrations of theoretical patterns (inference, patterns, generalizations). Provide opportunities for observation, experimentation, and attention to detail.*

Activity*. Provide examples, describe the theory, show the consequences, present applications.*

2 - Perceiving

Through what sensory modality is information most effectively perceived? What's the best way to present content? Match how students receive information with types of presentations.

- **Visual learners** - *see* - prefer visual representations of presented material (pictures, timelines, diagrams, flow charts, films, demonstrations). They tend to forget what people say, but remember visual demonstrations.
- **Verbal learners** - *read* - prefer written and spoken explanations (readings, lectures, discussions). They prefer a verbal explanation and get a lot out of discussions.
- **Kinesthetic learners** - *do* - hands-on demonstrations, movement, organizing physical objects

Example*. Use pictures, graphics, sketching (before, during, and after). Show video segments. Use live demonstrations. Incorporate and movement into lessons.*

Visual-Verbal-Kinesthetic Activity. Ask students to compare two photographs (visual) and discuss (verbal) their findings. Then ask them to re-create (kinesthetic) one of the scenes.

3 - Processing

How does the student prefer to process information? How do students like to work with content? Match how students process with student participation activities.

- **Active learners** – *experimenter*, learn by trying things out, working with others, testing out ideas, explaining to others (through physical engagement or discussion with others). They do poorly in lecture situations where they simply listen and aren't asked to "do". They do well in groups. Ask them to evaluate ideas, carry out experiments, and find workable solutions. They are organizers and decision-makers.
- **Reflective learners** – *observer*, learn by thinking things through, working alone (through interpersonal thought and quiet activities, watch & listen). They do poorly in lecture situations where they simply listen and aren't given time to "think" . They do best by themselves. Ask them to define problems and propose solutions. They are modelers and thinkers.

Example: *Alternate lecture with pauses for thought and opportunities for problem-solving activities. Materials should present both practical problems and fundamental understandings that bridge theory and practice.*

Activity*. Seated in small groups. Pose an open-ended question and give time to read and think. Then, ask students to come up with collective answers to questions. Provide 30 seconds to five minutes. Discuss alternative solutions and answers. Or, show possible answers and ask students to discuss solutions. Provide time in class to simply "think" in the form of creating an example, brainstorming solutions, categorizing ideas, thinking about what has been learning, thinking about what's still muddy, thinking about ideas that don't fit the theory.*

4 - Perspective

What type of perspective is provided? How does the student progress toward understandings? How do students "put it all together"? Match how students understand with different perspectives.

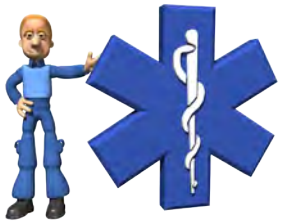
- **Sequential learners** – *"the trees"* - linear, orderly, learn in small incremental steps (continual chunks of information, step-by-step progression). They follow sequential content learning along with way. They can work with ideas they only understand superficially. They are good at convergent thinking and analysis.
- **Global learners** – *"the forest"* - holistic, system thinkers, learn in large leap, context and relevance (large jumps, big picture, and "lightbulb" moments). They may be lost for a while and suddenly "get it." They may not be able to explain how they got to solutions, however they are great at seeing connections between disciplines. They are good at divergent thinking and synthesis. They are great at seeing the big picture, but can become lost and frustrated when dealing with individual skills and facts.

Example*. Most classrooms are designed to meet the needs of sequential learners. To reach global learners, be sure to provide the "big picture" and learning outcomes for each class period. Establish the context and relevance of content and relate it to student experiences. Use "what ifs" and involve students in seeing the impact of decisions. Show how content fits into more advanced concepts. Ask students to design alternative solutions for problems. Applaud creative solutions, even incorrect ones.*

Whole-Part-Whole Activity. *This works well for both analytic and global learners.*
WHOLE: Demonstrate the entire skill, beginning to end while briefly naming each action or step. Ask students to wait for questions.
PART: Demonstrate the skill again, step-by-step explaining each part in detail. Take questions as needed.
WHOLE: Demonstrate the entire skill, beginning to end without interruption or commentary.

As you design instruction, use a variety of strategies to reach different types of learners. You don't need to throw in the kitchen sink, however you never know what might reach a learner.

Brainstorm Activity Ideas



Brainstorm your own activities to address individual differences within each of the four categories:

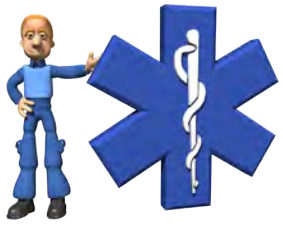
1 - Preferences
- Sensing learners
- Intuitive learners

2 - Perceiving
- Visual learners
- Verbal learners
- Kinesthetic learners

3 - Processing
- Active learners
- Reflective learners

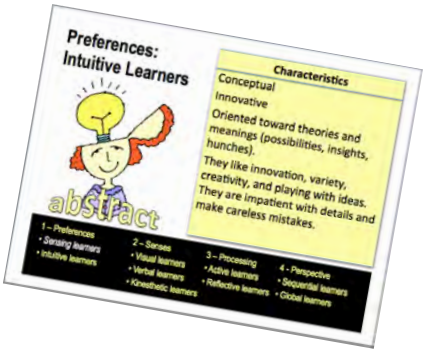
4 - Perspective
- Sequential learners
- Global learners

Adult Learners: Apply Adult Learning Styles



Directions:

1. Select and read a learning styles card.
2. Find the other people with a card in your category: Preference, Perceiving, Processing, or Perspective.
3. Share the characteristics described on your card.
4. Discuss whether your learning style is more like your card or a peer's card.
5. Brainstorm a class activity that would meet the needs of all learners in your category. Use the last couple handout pages for ideas.
6. When your instructor calls an end to the round, switch cards with a member of another group and complete steps 2-5 again.



Need class topic ideas?

Consider the following objectives from course syllabi:

- Identify the components of vital signs.
- Describe the methods to obtain a pulse rate.
- Demonstrate the skills in obtaining a pulse.
- Identify normal and abnormal pupil size.
- Demonstrate the skills in assessing the pupils.
- Describe the safe lifting of cots and stretchers.
- Explain the rationale for properly lifting and moving patients.
- Working with a partner, the EMT-Basic will demonstrate techniques for the transfer of a patient from an ambulance stretcher to a hospital stretcher.
- Differentiate the care of an open wound to the chest from an open wound to the abdomen.
- Define the role of the paramedic relative to the safety of the crew, the patient, and
- bystanders.
- Describe the actions that the paramedic should take to preserve evidence at a
- crime or accident scene.
- Differentiate the strategies a paramedic uses when interviewing a patient who is hostile compared to one who is cooperative.
- Demonstrate the steps in the emergency medical care of a patient with an open chest wound.
- Identify different types of helmets.
- Explain the preferred methods to remove a helmet.

Adult Learners: Adults & Instruction

Adults come to class with real-world needs and expectations such as the desire to become an EMT or paramedic. Instruction is a **solution** for a performance-based problem.
Adult learning isn't about "covering the textbook".

***Example**: An EMT must be able to safely transport a patient. This student must learn the required knowledge, skills, and dispositions so he or she can become certified.*

Instructional Goal

Before designing or enhancing instruction, it's important to ask yourself about your purpose. The National Emergency Medical Services Education Standards (PDF) (2009) from NHTSA describe the outcomes of instruction in terms of student performance. These are the basis for the EMS personnel preparation.

***Example**: Ask yourself, what do you expect students to be able to know and do as a result of instruction? How does this relate to the national standards?*
***Example**: Ensure the safety of the rescuer and others during an emergency.*

Learning Objectives

Objectives focus on specific, measurable learning expectations and outcomes.

- **A – Audience**. Who is the student?
- **B – Behavior.** What performance do you expect?
- **C – Conditions for performance**. What are the conditions of the behavior? What will you give the students to facilitate performance?
- **D – Degree or Criteria**. How it will be measured? How successful do they need to be?

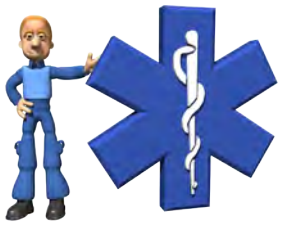
Why Objectives?

You need to know what you need to teach (for teaching)
You need to know what has been accomplished (for testing)
You need to make students aware of what is expected (for learning)

***Example:** Given CONDITION, the AUDIENCE will BEHAVIOR to DEGREE.*
***Example:** The student will identify the illness or injury of a patient given a list of signs and symptoms 90% of the time.*

Identify the ABCDs of Objectives

Examine the objectives below and identify the ABCDs.
The student will identify the major bones of the body when given a drawing of a human body 100% of the time.
When given a mannequin, the student will accurately demonstrate four ways to prevent back injuries.



Domains of Learning

Benjamin Bloom identified three major areas of learning: cognitive, affective, and psychomotor:

Cognitive (thinking). Focuses on recalling, applying, analyzing, synthesizing, and evaluating information. Learners are able to do some cognitive activity such as apply rules or solve problems. Learn by storing and accessing information. What do I know?

***Example**: Opening the airway is the A in ABCDE.*

Affective (feeling). Focuses on appreciations, attitudes, relationships, and values. Learners are able to make informed decisions based on values or priorities. Learn by accessing feelings and understanding emotions. What is the value?

***Example**: Opening the airway will keep the patient alive.*

Psychomotor (doing). Focuses on actions that demonstrate large or small motor skills. Learners are able to achieve a physical result such as operating a piece of equipment. Learn by doing. Kinesthetic movements. What do I do?

***Example**: I need to complete the steps in opening the airway.*

The EMS profession requires proficiency in all three areas. Yet, some students struggle in one or more areas.

***Example:** An EMT must RECOGNIZE (cognitive) the indications for oxygen therapy, APPRECIATE (affective) the level of distress felt by the patient, and ASSEMBLE (psychomotor) an oxygen tank.*

Audience Analysis

Knowing your students is the key to teaching.

Student Characteristics. Who are your students?

- **Entry Knowledge and Skills** (i.e., reading level, knowledge of human anatomy, experience)
- **Demographics** (i.e., age, gender, cultural background, education background, socioeconomics)
- **Predispositions** (i.e., interest, motivation, aptitudes, problem-solving skills, desires)

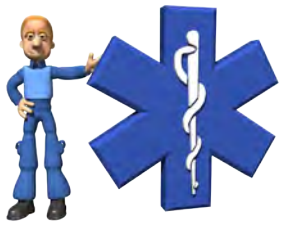
***Example**: All students have a high school diploma or GRE, however many have a low reading level and lack interest in reading.*

Implications of Student Characteristics.

- What are these people like as learners?
- How will learners behave in the classroom situation?
- How can accommodations be made based on characteristics?

***Example**: Rather than large blocks of reading, materials will be presented in chunks at the lowest reading level necessary to address the learning outcome. Visual examples will be used to supplement text-based examples.*

Identify Yourself and Your Learners



Which is your strongest domain: cognitive, affective, or psychomotor?
What about your students?
What are the typical entry skills, demographics and predispositions of your students?
How does that impact learning?

Learning Experiences

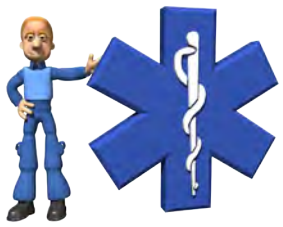
I want to experience the concepts we've been exploring through reading.
I need to be able to actually "do it," not just answer questions on an exam.
I need practice to apply these skills I'm learning.

Although students may not express these ideas in writing, most learners want more from a course than readings and tests. They expect to be able to perform, create, and apply course knowledge and skills. Rather than thinking in terms of class periods or lessons, consider how you can address outcomes through meaningful sets of learning experiences.

- What type of experience will best help students learn the specific knowledge and skills?
- How will you build a set of experiences that connect cognitive, affective, and psychomotor skills?

Identify Learning Experiences

What's taught in lecture vs lab sections? How is the content interwoven? How will students explore course content, actively apply this content, practice new learning, and share their understandings?



When you think of building learning experiences, lessons, or class plans, consider four elements:

1. **Motivation**
2. **Information Exploration**
3. **Student Involvement**
4. **Closure/Transfer**

Learning Experiences: Motivation Elements

Begin with a springboard activity or other type of hook to gain learner's attention.

Ask yourself: How will I gain and maintain student interest throughout the experience?

Authentic learning stresses meaningfulness. Students need to care about what they're doing. They need "buy in" for a lesson to become engaging. Consider ways to connect your class to the "real world" from the beginning of the lesson.

Key Elements

Gain the learner's attention

Generate interest with a quote, story, cartoon, event, or experience

Draw attention with an unusual, unique example or problem.

Example*: Show a photo of a person in handcuffs and ask: could you be arrested for helping someone?*

Persuade students the content is worth knowing

Feed curiosity using statistics or dilemmas to make students wonder

Example*: Show a photo of a person with an injured back with the caption: You could be injured helping someone. Learn to lift properly.*

Introduce the main idea

Use an example to focus on the "big picture"

Provide a context for learning with a scenario to be discussed at the end of class as a review

Conduct a demonstration

Pose a question: what would you do in this situation?

Example*: Show a photo of an unconscious person. State the learning outcome and reason it's important. Cells need oxygen and glucose to make energy so they can perform their functions. This is what happened when cells lack energy!*

Inform students of the learning outcome

Allow students to ask about the objectives

Example*: State the objective. The EMT will differentiate between expressed and implied consent.*

Recall prior knowledge… what do you already know?

Check for misconceptions and bias

Example*: Show a diagram of checking blood pressure and review the vocabulary and procedure.*

Learning Experiences: Motivation Activities

Activity Ideas

The Right Foot. It's essential that the first experience a student has with a topic is accurate. Students are most likely to remember their first encounter more than subsequent experiences, so be sure to provide a concise, correct demonstration or explanation before looking at common errors or problems. Conduct a short demonstration or overview of the topic and do a quick check of understanding.

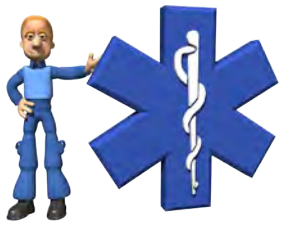
Example*: Use clear illustrations such as the brain. Use Wikimedia Commons: Medical illustrations. Ask students to examine the image, copy labels, and check neighbor's work.*

Round Robin Brainstorming. The process of recording many ideas related to a particular problem or idea is called brainstorming. All thoughts are listed no matter how strange they may seem. When all ideas have been exhausted, then the list is organized and evaluated. Although often done in groups, brainstorming can also be done individually. Use brainstorming as a way to identify misconceptions and bias.

In a small group, an open ending problem or question is posed.
Each group member posts one response or idea.
After everyone has responded, each person posts a second idea, then third, and fourth until everyone runs out of ideas.
The instructor then looks through the list looking for misconceptions.

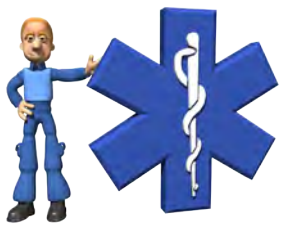
Round Robin Practice

Complete a round robin brainstorming activity.
Brainstorm risk factors, signs, or symptoms of suicide risk.
Discuss misconceptions students might have about this topic.



Identify Motivation

What do you do at the beginning of each class now?
What element will you add to during the first five minutes of your class?
Provide a content-specific example.



Learning Experiences: Information Exploration - Content Structure

Help students construct knowledge, learn concepts, and build skills by providing organized access to course content.

Ask yourself: How will students learn the concepts detailed in the learning outcomes?

What will I teach and in what order? Begin with your learning objectives.

Rather than teaching from the textbook, help students explore cognitive, affective, and psychomotor domains related to the learning outcomes.

***Example**: Use different images of the heart than are seen in the textbook. To find more options, do a Google Images search using the words heart diagram.*

Chunk content. Find natural groupings of information. Cluster, categorized, and organize information. Define key terms.

***Example**. Use the SmartArt options in Powerpoint to explore organizational tools.*

Use examples and nonexamples. Use examples to show instances of the concept. Use nonexamples to distinguish things that are not instances of the concept.

***Example**: A sunburned shoulder is an example of a thermal burn. A lightning burn is NOT an example of a thermal burn because it's an electrical burn.*

Sequence content. What's the order of presentation?

***Example**: Let's explore techniques to stop bleeding in a conscious patient if there is no risk of spine injury. It's a three step process (1) sit the patient up and lean forward, (2) pinch the nostrils together firmly, (3) tell patient not to sniffle or blow nose.*

Show patterns and connections. Identify patterns, connects, and ways to think about content. For instance, mnemonic devices are useful.

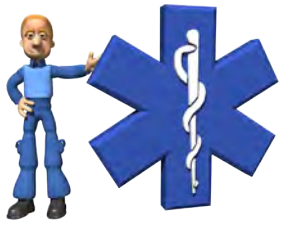
***Example**: Use a mnemonic such as OPQRST History: Onset, Provocation, Quality, Radiation, Severity, Time.*

Weave in human elements. What's essential to remember and what did you learn from experience?

***Example**: Use audio recordings of real people and situations.*

Identify Content Structure

Share an example of how you systematically structure course content.



Learning Experiences: Information Exploration - Content Formats

What resources will be use? Use a variety of formats to address learning styles and provide different ways of thinking about course content. Use media to attract rather than distract attention.

Think about all the ways you can help students understand a concept. Let's explore the following formats: text, graphics, audio, motion, multimedia.

Text

In addition to textbooks and instructional materials, use text from professional and government agencies to provide additional depth and alternative perspectives. Traditional exams don't provide an opportunity for students to recall content. Instead, they focus on recognizing and identifying answers. Students need to be able to explore, organize, and clarify their thoughts in writing. They need to analyze and synthesize information about patient conditions and accurately relay information to other members of a team. Both oral and written components are essential.

Fact Sheets provide an overview of a topic.

> **E*xample***. *Direct each student to read one of the Blast Injuries fact sheets from the American Trauma Society. Then, ask them to compare this information to what is provided in the text book. This comparison allows students to think beyond the basic information and synthesize data from multiple sources. This makes an excellent homework assignment as well as providing an opportunity to use real-world resources beyond the textbook. Do a search for a topic and add the word "fact sheet".*

Worksheets provide a way for students to interact with text.

> ***Example***. *Provide a description of an injury and an illustration of the human body. Ask students to show the injury on the illustration.*

Online News Websites provide examples of real-world EMS news.

> ***Example***. *Select an article such as one where an athlete died from a heat incident. Ask students to step into the role of the EMT and report implications of the death from different perspectives. Or, list assumptions made by the article. What followup questions would you ask?*

Online Medical Websites provide current information.

> ***Example***. *Compare the definitions or resources at two different websites. Do they support or contradict each other? Why? AAOS Website Topics*

Government Websites provide up-to-date news, content, and guidelines.

> ***Example***. *Ask students to identify government recommendations or information regarding a topic covered in class. For instance, use the influenza section from the Center for Disease Control.*

Primary Source Documents allow students to see real-world materials.

> ***Example***. *Ask students to read and interpret equipment manuals.*

Learning Experiences: Information Exploration - Content Formats

Graphic

Visual representations are useful for overviews and reviews of topics. They also provide spatial information that is difficult to convey in text. Ask students to compare different image, label diagrams, or identify signs or symptoms from photos.

Charts and Graphs are a way to display numeric information visually.
Example*. Present and interpret government health statistics.*

Diagrams are a simplified visual representation of an object, concept, or idea.
Example*. Use diagrams to show body processes and relationships*

Illustrations include drawings and sketches that communicate information.
Example*. Add speech bubbles to photos in PowerPoint rather than using a text scenario.*

Maps provide a visual representation of an area showing relationships in space.
Example*. Use maps of disaster locations to discuss accident scene safety assessments.*

Organizers show relationships among data, connections like cause and effect, chronologies of events, or comparisons such as pros and cons.
Example*. Use organizers to show cause and effect related to changes in the endocrine system.*

Images include photographs, X-rays, and other ways of generating visuals from physical objects.
Example*. Use photographs of real-world calls to visualize situations.*

Symbols are visuals used to present ideas, concepts, or abstractions such as medical notations.
Example*. Use real-world medical symbols and abbreviations within classroom situations.*

Audio

In addition to lectures and discussions, there are other ways to incorporate audio into the classroom.

Speech includes your lectures, but also audio recordings such as pronunciation, dispatches and sample patient statements.
Example*. What does slurred speech sound like? What could it indicate?*

Natural Sounds include background noise and the sound of breathing.
Example*. Use Breathing sounds to discuss different patient needs.*

Music can be used to increase energy during a classroom activity
Example*. Use the Adam-12, Emergency, or ER theme songs to attract attention.*
Example*. Play soft music in the background during work time.*
Example*. Use music to introduce a scenario: Is your call to a concert venue or a football game?*

Learning Experiences: Information Exploration - Content Formats

Motion

Demonstrations provide an up-close examination of a procedure.
***Example**. Watch EMTB Videos - Types of Carries .*

Interviews provide insights into the profession.
Example. Watch interviews from YouTube government channels.

Simulations provide a multi-sensory way of experiencing a situation without being there.
***Example**. Download video from YouTube using KeepVid: Video 1, Video 2, Video 3*

Informational videos provide an overview to a topic.
***Example**. Use video segments to provide a different perspective on a topic such as Concussions or Coma. Watch HealthCentral and Medical Videos- lots of annoying ads*

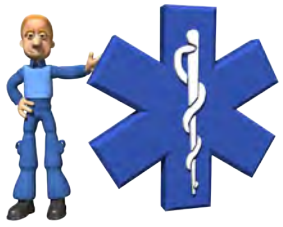
Multimedia

Animations provides a focused, moving representation of a concept.
***Example**. Integrate medical animations such as Penn Medicine Animations, LearnerTV,*

Interactive Tools allow students to interact and make choices.
***Example**. Use the BBC Interactive Body.*
***Example**. Incorporate interactive tools into learning.*

Explore Content Formats

What content formats (i.e., text, graphic, audio, motion, multimedia) do you use right now? Share a couple formats you might try incorporating.



Learning Experiences: Information Exploration - Activity Ideas

Activity Ideas

Incorporate questioning and opportunities for problem-solving into class materials. Space out activities throughout information exploration. Look for chances to challenge student thinking.

Active Lecture

Also known as "guided lecture," this approach combines traditional lecture with embedded activities, questions, and opportunities for students to interact. Students develop critical thinking to increase student comprehension. When embedded every 8-10 minutes, student attention is maintained and participants have the opportunity to assimilate information before moving on.

- **Embedded Activities**. Students complete activities such as completing diagrams, taking notes, manipulating models, and other active experiences. This may also include lab activities and demonstrations.
- **Embedded Questions.** Students respond to questions that provoke cognitive reasoning and stimulate higher level thinking such as "how" and "why". These questions are woven into the lecture materials to help students apply information.
- **Embedded Discussions**. Students interact with peers on topics related to materials presented in class. Use these experiences to bridge theory and practice. Ask students to come up with real-world applications and share experiences with the content.

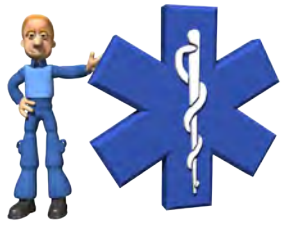
***Example**. Present key concepts: tuberculosis is a bacteria and it's of greatest risk to you when inhaled (especially in an enclosed space). Present a question:*
When transporting an active TB patient, what can you do to minimize your exposure besides wearing a mask?

a) Cover patients head with a sheet
b) Spray the area with a disinfectant
c) Open vents/windows
d) All of the above

Ask students to defend their answer in a small group.
Debrief by explaining why "open vents/windows" is the best answer. Explain why the others aren't as effective.

Active Lecture

How do you keep students engaged during lectures?
Discuss ideas for embedded activities, questions, and discussions.



Learning Experiences: Information Exploration - Activity Ideas

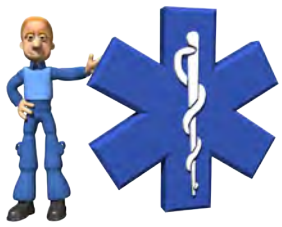
Active Demonstration

Involve students in modeling activities and demonstrations. This works well for both analytic and global learners.

Example. Build chronologies/sequences/chains of events. After demonstrating a whole procedure, go back and demonstration step-by-step. Insert a WHY between each step in a procedure. Rather than a list of steps that are memorized, students are asked to focus on the reasons (and the theory behind their actions) for moving from one step to the next. This leads them to think about theoretical underpinnings of the process itself and helps with critical thinking on the test where they are often asked to react to unusual situations and tell the best "next step".

Active Demonstration

Work with a sequence of events related to a demonstration or scenario. Brainstorm the theories that apply. Design a WHY activity that involves students in thinking about "the next step" in a sequence.



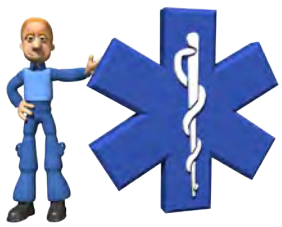
Self-Instruction Tutorials

Present step-by-step instruction teaching new concepts in a printed packet, self-instructional PowerPoint presentation or a series of cards. Tutorials are designed to provide new information along with examples and nonexamples of concepts. In addition, practice and feedback is often incorporated into the program. Tutorials work well when introducing new concepts and reviewing difficult ideas, or providing enrichment.

Example*: Go to the MedlinePlus Interactive Health Tutorials.*
Example*: Go to HeartScape.*
Example*: Go to Public Health Emergency Training.*

Self-Instructional Tutorials

Explore online tutorials. Brainstorm ways these could be incorporated into homework or classroom experiences. To find tutorials, do a Google search for your topic and add the work tutorial such as "respiratory system tutorial."



Learning Experiences: Information Exploration - Activity Ideas

Student Sharing

It's easy to get into the lecture mode and forget other ways to involve students in information exploration. Ask students to learn material that they will teach to others. Explore alternatives to lectures for disseminating information.

Jigsaw

Developed by Elliot Arnson, this approach involves learners becoming experts in a topic and sharing their expertise with others. This approach can be used with chapters in a textbook, software packages learned, websites evaluated, etc.

***Example**:*
Groups are formed to learn about a general topic such as types of seizures.
Each group member is charged with becoming an expert in one area such as aura, tonic, clonic or postictal.
Expert groups meet to share what they've learned, discuss presentation options, and help each other create materials.
Students return to their original group to share what they've learned.
Individual assessments are given to ensure that all students understand all concepts.

Strategy Menu

Experience an activity called the "Strategy Menu."

Example:
Distribute a menu of 5-7 strategies, approaches, interventions or other key concepts. Check off those you're are familiar with.
Each person is given a card with a strategy and description or glossary statement. They should be ready to share this strategy with someone else focusing on key features.
During the first round, participants will pair up with another student and share their strategies. They should take notes on a card, but not copy their peer's card.
During the next round, students share the most recent strategy they learned from their previous partner. They should take notes and be ready for the next round.
Hold as many rounds as you wish.
Ask students to revisit the strategy list and see what areas they wish to learn more about.

Student Sharing

What content would work well for a Jigsaw or Stategy Menu activity? Brainstorm topic ideas.

Learning Experiences: Student Involvement - Elements

Help learners practice with feedback and apply content to solve problems. Design activities where you can observe students in action performing the task, discussing the issues, or answering questions.

Ask yourself: Are students really learning what's being taught? What activities will help students practice?

Provide opportunities to process information by providing practice with feedback.
***Example**. Ask students to choose and explain a concept from class.*

Provide chances to apply content to solve problems.
***Example**. Ask students to think and respond to a problem posed in class.*

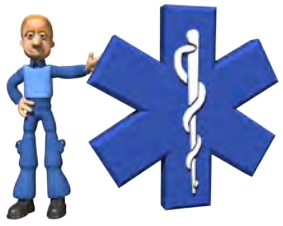
Give cues and hints that fade with each activity.
***Example**. First round provide the mnemonic and a visual as a reminder. Second round remove the visual. Third round remove the mnemonic from the slide/board.*

Check for understanding.
Example. Ask.. What's the muddiest point?
What's the greatest concern?
Where are the most likely problems?

Provide encouragement and praise.
***Example**. Start with praise, add in criticism, end with encouragement.*

Design Student Involvement

Select one of the ideas above and share how you might use it in a specific lesson.



Learning Experiences: Student Involvement - Activities

Categorize Activities. Ask students to categorize information.

> ***Example****. Provide information and ask students: how can we classify these? In groups, have students write on 3 post-its ways to classify. Put things into categories. Add something to each category. Or, put things around the outside. Your job is to go back and classify. Write a symptom, situation, on a post it. Others are asked to classify or put in columns.*

Clariscope. This decision-making tool helps builds consensus. Learn more.

> ***Example****. Focus on dilemmas where all options have problems. Each member has post-it notes and writes one thing which could be done. Share the notes. Each person gets 5 votes to apportion which are most important. These that are placed on the post-it notes. Divide into three groups: essential, desirable, rejected (might be good, just unrealistic). Agree on what is "in" and "out".*

Compare and Contrast Activities. How is the information from different resources alike and different? Why? Compare and contrast sources and types of information. Identify new pieces of information that can be added to overall understanding. Use a three-column comparison chart to help organize and analyze information on topics where there are two or more perspectives.

> ***Examples****.*
> *Describe a situation and compare two different courses of action.*
> *Describe a situation and compare two different patients.*
> *Describe two situations and how your reaction would be different based on the circumstances.*

Distinguish Activities. Many objectives ask students to distinguish between alternatives.

> ***Example****. It's important that students can differentiate between different signs and symptoms. For instance, they need to be able to determine a patient's level of pain.*

Order Activities. Many activities have a specific sequence. Pratice sequencing.

> ***Example****. Work on ordering cards, post-its, objects, or other physical objects to help students practice this skill. Ask students to verbalize WHY they made a particular choice.*

Peer Observations. Ask students to become observers.

> ***Example****. One person talks through the process. Another person observes and takes notes on what they would do different. Then discuss their experience.*

Learning Experiences: Student Involvement - Activities

Personification. Ask students to "become" something or someone else.

> ***Example****. Assign each student a drug. Assume the character of the drug. What characteristics would the drug have? Does it belong to a family, have interaction problems, adverse reactions. Rather than examining one case. Students work in pairs. Compare two real-world situations. How would the results be alike and different? Adapted from Walker (2003)*

Priorities, Activities, and Sequencing Strategies (PASS). Ask students to focus on a goal, tasks, and sequence.

> ***Example****. This activity involves three steps. First, what is the goal? (i.e., stabilize patient, transport patient, open airway). Put categories on different sheets of paper. Second, what are the major tasks. Put on post-its under each category. Third, select a sequence. Which tasks can only be completed after another task? Which tasks can be done at the same time? Which tasks don't depend on other tasks? Share the results.*

Problem-Based Learning. A problem is presented and students are guided through the process of uncovering information and evidence that can be used to identify a solution. Information might include causes of the problem, symptoms of a patient, or possible interventions. This approach has been shown to increase clinical reasoning skills. The key is the environment much be structured to include supportive assignments and activities along with a foundation of relevant information.

> ***Example****: Create problems for others to solve. Ask students to place patient information on one side of the card and the treatment on the other side of the card. Students should check the work of the peers at their table. Then, trade cards with another table.*

Process or Flowcharts. Create algorithm visual showing a sequence of events. Focus student attention on discrete events, activities, and sequencing. Create flow charts with yes and no answers related to a topic.

> ***Example****: Use the ACLS Algorithms Flowcharts. Ask students to build a flowchart for another task.*

Rank and Prioritze Activities. Students often have a hard time identifying the most efficient or effective choice. In many cases, they will be asked for the "best" choice on a test. Provide opportunities for students to evaluate and order choices.

> ***Example****. Explore sample test questions focusing on the most efficient or effective choices.*

Learning Experiences: Student Involvement - Activities

Taking Action Activities. Students must practice making choices and taking action. Then, seeing the consequences. What can we do in this situation?

What would happen if BLANK is not implemented?
What would happen if BLANK is partially implemented?
What would happen if BLANK is implemented?

***Example**. Set up a scenario with choices of actions and objects related to those actions. Under each piece of equipment place a card detailing what would happen in the "real world" if that choice was made.*

Think-Pair-Share. Follow a three step process for reviewing course content.

***Example**.*
Think. Individuals think about a question or problem posed by the instructor.
Pair. Two people share their thoughts and exchange ideas.
Share. The pairs share their ideas with a small group or the entire class.

Vocabulary Activities. Many EMS students are overwhelmed with theoretical information because they lack a framework they can use to assimilate information. Rather than a long list of vocabulary, ask students to physically label models, equipment, or situations. Then, a partner will define the element and describe how it fits into the "whole" of a situation. Combining the physical/spatial activity will help some students remember the vocabulary as well as the concepts associated with the vocabulary. Research shows that associating visuals with concepts increases retention. I'll ask faculty to participate in an EMS example. Then have the faculty brainstorm three places in their course where this might apply. It's an easy thing that can be added to a course without much effort.

***Example**: Label models, equipment, or situations.*
***Example**: Ask students to take a card and write a word or phrase; or draws a picture of an item; write vital signs. Trade cards and the peer writes the definition or action on the other side. These become part of a game.*

Writing Activities. A concern of the task force (Ruple, 2006) is the lack of opportunity for students to develop writing skills. The ability to clearly and succinctly present pertinent information regarding patients is a critical skills for the emergency medical provider to possess. Ask students to complete forms, write in a matrix, keep a journal, write a letter, or create other types of real-world documents.

***Example**: Ask students to keep a journal. For each reading assignment, select some aspect of the chapter and share a real-world example that reflects the student's understanding of the key concepts.*

Learning Experiences: Closure & Transfer - Elements

Ask learners to draw conclusions, apply new knowledge and skills, and transfer ideas to new learning situations.

Ask yourself: How will I conclude and help students transfer learning to new situations?

It's also essential to review content from earlier classes to ensure retention and use. Students need to see how the concepts are related from one class to the next.

Key Elements

Summarize the key ideas

Review examples, nonexamples, and critical characteristics

Discuss how skills are applied

Transfer to new situations

Apply to unusual situations

Associate with other learning from earlier in class

Draw conclusions

Learning Experiences: Closure & Transfer - Activities

Activities

Truth Seeking Activity. Explore a situation when you as the instructor have had different experiences than what is being discussed in the textbook. Share your concerns about the "real world" versus the theory and talk about the purpose of theory. Talk about reconciling inconsistencies. This is a great topic when things "change" in the profession.

> ***Example.*** *Talk about the hands-only CPR and how it was changed thinking about CPR for the general public. Ask students to discussion these changes.*

Triggers and Actions. Help students put the current topic within the context of the larger course by weaving content from various lessons together into an activity.

> ***Example.*** *Provide students with a set of 5-7 action cards. Ask the student to take a card from a pile containing triggers such as signs and symptoms, unsafe situations, key words. Ask students to match it to one of the cards in their hand. The moderator then checks the answer. If the student has chosen the best course of action, they keep the trigger card. If not, they place it in the discard pile. The goal is to collect a certain number of triggers.*

What's in the Box. Review all of the instruments learned up to this point in the course. They helps students distinguish when each might be used.

> ***Example.*** *Provide each group with a closed bag containing important tools. Each student reaches in the bag and pulls out a tool. Their job is to name it, describe its use, provide 3 specific examples of when it might be used and why it's in the bag.*

Error Handling. It's important that a student's first experiences is with the correct procedure. However, once students have developed expertise, they are ready to look for patterns of errors and identify the "incorrect" methods.

> **Example.** *Write a sequence of events on post-its or cards. Reorder the elements. Talk about what happens when things get out of order.*

Engaging Examples. Provide students with a list of categories. Randomly select a category. Students must write down a single clear example that belongs to that category on a card. Each person reads their example aloud. Everyone places the cards on the table. On the count of three, point to your favorite example. You can't point to your own. As a group discuss those examples that were selected.

Learning Experiences: Closure & Transfer - Activities

Vocabulary Game. Ask students to recall names, definitions, and uses for items.

> ***Example.*** *Post photos and/or instruments, equipment, tools around the room. Move around adding a word, definition, or situation where it might be used to each item. Move to whatever item is available at the time. Then, go back around as a group and analyze the information as a group.*

Still Wonder. Near the end of class, ask students to write a question he or she still wonders about on a card. Everyone places cards into a basket. Individuals take cards. In groups, they try to address all the questions. If your group can't answer the question, ask the instructor. At the end, ask if anyone still has questions… this should help decrease the number of questions.

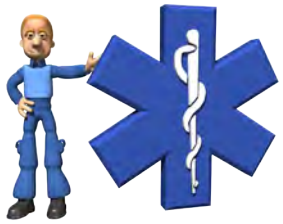
Big Picture Scenario. Consider a scenario that small groups follow through the entire course. They continue to come back to their patients and needs. Think about different categories: a water disaster, a wind disaster, a fire disaster, a campus violence disaster.

> ***Example****. Think about different categories: a water disaster, a wind disaster, a fire disaster, a campus violence disaster.*

Out the Door Activity. Post the learning outcome for the day. Before leaving class, ask students to take a card and circle: Stop, Go, Proceed with Caution. Ask students to put a stop (I'm totally confused), go (I'm ready to move on), or proceed with caution note (I could use some clarification on…) and leave it for you in the basket by the door. Use this information when planning for the next class.

Select Closure Activities

Go through the suggested closure activities. Select one and adapt it for use in your classroom.



Engaging Activities

Use engaging activities to bridge theory and practice.

Student must be able to use vocabulary, apply rules, and cite principles during scenarios, discussions, and games. Build these elements into the activities:

- **Terminology**. Require students to label pieces of equipment and parts of the body, define the words they are using, and discuss how the situation could be different.
- **Rules**. Ask students to journal or state the rules they are applying.
- **Principles**. When developing activities, incorporate elements that require students to state the principles they are applying.

Look for real-world experiences that bridge theory and practice.

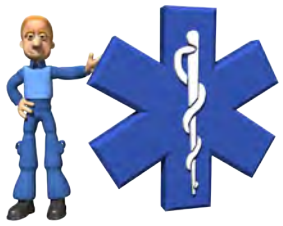
Let's focus on some specific types of activities that will engage your learners and facilitate the development of specific skills.

1. **Simulations**
2. **Discussions**
3. **Games**
4. **Interactives**

Engaging Activities: Adapt an Activity

Instructions. Address the four questions for each of the four activities:

1 - Does the activity match the objective?
2 - What did you like and dislike about the activity?
3 - What other content would work with this approach?
4 - Rank the game 1 (low) to 5 (high) on four elements.



Activity 1

Activity=Objective? Y N
Like and Dislikes

Other Content

Motivation/Interest 1 2 3 4 5
Ease of Adapting 1 2 3 4 5
Transfer to test 1 2 3 4 5
Transfer to "real-life" 1 2 3 4 5
Overall 1 2 3 4 5

Activity 2

Activity=Objective? Y N
Like and Dislikes

Other Content

Motivation/Interest 1 2 3 4 5
Ease of Adapting 1 2 3 4 5
Transfer to test 1 2 3 4 5
Transfer to "real-life" 1 2 3 4 5
Overall 1 2 3 4 5

Activity 3

Activity=Objective? Y N
Like and Dislikes

Other Content

Motivation/Interest 1 2 3 4 5
Ease of Adapting 1 2 3 4 5
Transfer to test 1 2 3 4 5
Transfer to "real-life" 1 2 3 4 5
Overall 1 2 3 4 5

Activity 4

Activity=Objective? Y N
Like and Dislikes

Other Content

Motivation/Interest 1 2 3 4 5
Ease of Adapting 1 2 3 4 5
Transfer to test 1 2 3 4 5
Transfer to "real-life" 1 2 3 4 5
Overall 1 2 3 4 5

Engaging Activities: Simulations

Situated learning places students as close as possible to a real-world situation. When possible, real contexts, roles, and tools are used. When a student connects what is learned to an actual situation, the translation of content becomes clear. The closer to real-life, the more effective:

- Use real-situations from the news
- Use real-911 audio recordings
- Use real-"cop shop" articles
- Use real photographs

Key to success

- Designed to be simple, yet complex enough to feel authentic.
- They should be close to real-life.
- Incorporate photos, documents, sounds, and data.
- Consider common mistakes and misconceptions.

Scenarios

Scenarios are descriptions of situations that provide a context for discussion or debate. They help students visualize a series of actions and can be used to test out ideas and strategies. Unfortunately, they can also be overly simplistic leading to inappropriate generalizations.

> ***Example****. Students are presented with information necessary to take on a role or solve a problem. For instance, Susan observes BLANK. She does BLANK because …. Do you agree or disagree with her reasoning? Why?*

Building Scenarios. First, design a set of circumstances including characters, setting, and action/events. Then, ask students to do one of the following:

- solve a problem
- discuss the options
- identify different perspectives
- bring the group to consensus
- respond to the situation
- identify a plan of action
- describe the steps in coming to a decision
- list the pros and cons
- convince others

> ***Example****. Students are given instrument readouts and patient information. Students must identify the problem.*
> ***Example****. Visit Survival Scenario Exercise, a group dynamics team building exercise, and examine the various scenarios that are included.*

Rather than simply providing text-based scenarios, begin with images, audio, or video.

> ***Example****: Incorporate short videos with background information for the scenario.*

Engaging Activities: Simulations

Case Studies

Case Studies are in-depth examinations of specific situations. The case study approach involves students in analyzing real or fictional cases in detail. While they are useful in exploring complex situations, they can be time-consuming to prepare and may not meet the spectrum of needs. A great way to bridge theory and practice, case studies are a practical approach to help students practice course content. You're also able to see how learners apply information and demonstrate understandings in authentic situations. Ask yourself whether a case study is needed or if a scenario work as well.

Building Case Studies. Present a specific situation or set of facts. Ask students to analyze the case:

- What's the context, key characters, and setting(s)?
- How does this case relate to course content?
- What are the primary issues?
- What are the different perspectives?
- What are possible solutions, alternative approaches, and consequences of various paths?
- What are the pros and cons for each approach or solution?
- What would you do? Take a stand. Use evidence to justify the position.
- How does this case generalize to the "real world"?

> ***Example****: Rebecca is BLANK age, with a BLANK history, in a BLANK situation. How could you treat her?*

Dilemmas

Dilemmas are situations where multiple options are provided, but none are acceptable. For instance, a dilemma may address two moral principles that required different courses of action. When students are asked to determine and justify a course of action, they learn to act on principles of justice and fairness rather than on self-interests or social norms. Students need to be aware that there may be many conflicting opinions. This approach can be overwhelming for some students, however it is effective and essential at addressing the core issues.

> ***Example****: This happened, but this happened. I'm supposed to BLANK. What should I do?*

Simulations

Simulations involve people playing roles with real-world equipment. Use this approach to introduce a learning outcome, review materials, or provide a culminating experience. The scenario can be stopped to point out key ideas.

Simulations help students apply their skills to "real life" situations by providing an environment to manipulate variables, examine relationships, and make decisions. This type of assignment is generally used after initial instruction as part of application, review, or remediation. In most cases, simulations should be used as a culminating activity after students have basic skills in the concepts being addressed in the software. Otherwise it is difficult for them to make informed decisions during the program. Without background skills, the simulation may become an unproductive game rather than a meaningful learning experience.

Engaging Activities: Simulations

Types of Simulations. There are many types of simulations.

- **Physical** simulations involve students in using objects or equipment.
- **Procedural** simulations involve a series of actions or steps such as medical diagnosis.
- **Situational** simulations involve critical incidents within particular settings such as interactions with patients.
- **Process** simulations involve decision making skills related to topics where students must choose among alternative paths.

Building simulation. Invent roles (i.e., patient, responding crew, bystanders, and facilitator. Provide cards for each role. Incorporate at least one of the following:

- **Location**. Consider a location such as the bathroom, hall, bottom of stairs to add realism.
- **Noise**. Incorporate background noise to add to realism
- **Makeup**. Use realistic wound makeup.
- **Props**. Use pill bottles, medical alert tags, dishes, food wrappers, medical supplies, newspapers, and other products.

Make it Real

Setup Provide all necessary equipment

- Use standardized skills sheets
- Allow guided practice skills prior to scenario
- Check skill competence before running scenario
- Add realism (i.e., props, noise, makeup)

Assign Roles Evaluator: Uses skills sheet and records steps performed.

- Information Provider. Uses a script and provides information.
- Team Leader: Primary Patient Care Provider
- Partner: Performs care as directed by leader
- Patient: Faithfully portrays signs and symptoms according to scenario
- Bystander: Acts as distractor or helper

Run Scenario Distribute the script

- Use real calls and primary source data such as forms
- Begin by reading the dispatch information
- Do not interrupt the scenario unless someone is in danger

Evaluate Use Positive-Negative-Positive format

- Start with positive statements
- Provide constructive feedback and areas for improvement
- End with positive reinforcement
- Allow role players to comment

Rotate Roles for Next Round

Engaging Activities: Simulations

Role-Playing

Role-Playing allow students to practice what is being taught in a controlled setting. Participants in role playing assignments adopt and act out the role of characters in particular situations. They may take on the personalities, motivation, backgrounds, mannerisms, and behaviors of people different from themselves. Set the stage and provide handouts or sheets with key information. Debrief at the end to reinforce learning objectives. (NAEMS, 2006)

- Student-student scripted role play
- Student-directed improvisational role play
- Instructor-student role play
- Guest role play

***Example**: Reluctant or Demanding Patients*
Objective. Conduct an effective conversation with a reluctant patient.

Divide the group in half. Move to opposite ends of the room and give them three minutes to prepare.

Ask members of Group A to take on the role of a reluctant patient and brainstorm a set of provocative statements, questions, or demands. Give examples such as "I'm late for a meeting and I don't have time for this."

Ask members of Group B to take on the role of EMTs and brainstorm effective statements to defuse the situation and empathic reactions to provocative statements. Give examples such as "Sir, I'm sorry you feel that way. We can save time by…."

Explain that you are going to conduct a series of one-on-one conversations between the patient and the EMT. A member of Group A will initiate an angry conversation by asking a question or making a demand. The person from Group B will respond in a calm and empathetic fashion to defuse the hostility. After one minute, the pairs will shift.

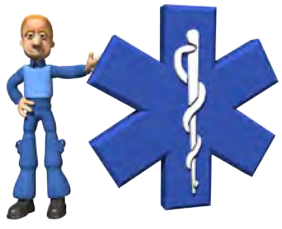
After five rounds, provide 3 minutes to plan for a switch in roles. Conduct another five rounds.

Debrief.
What are techniques and statements that worked effectively to defuse or calm the patient?
What are examples of empathic, apologetic, reassuring, and limit-setting statements?
What is a piece of advice you'd give a new EMT?

Simulations

Compare scenarios, case studies, dilemmas, simulations, and role playing activities. How are they alike and different?

Select and discuss one of these techniques and how you use it.



Engaging Activities: Discussions

Discussions are a way for students to share their understanding of course content.

Actively engage learners by reaching outside the required textbook readings and standard course content. Bring in multiple perspectives, authentic resources, and real-world problems. Also, think about multiple channels of communication.

- Students might be asked to
- read and comprehend course content
- analyze and interpret course content
- use and apply course content
- design and create their own meaningful example

Discussion Prompts

Create a clear, concise prompt that will initiate discussion. The following discussion starters are simple examples to help you generate ideas. Start with a(n)...

Action. Use verbs to bring a posting alive. Start with an event, disaster, or other activity. Then ask a question.

Example*. Compare the number of injuries and/or deaths to similar disasters. How are they alike and different? Speculate on why.*

Announcement. Make an announcement or statement. Use this to grab interest.

Example*. Deaths due to BLANK are on the rise. Why?*

Challenge. Challenge participants with a bold statement that might cause controversy such as one side of an argument or an opinion. Look for the controversy.

Example*. State your perspective and support it with evidence.*

Choice. Present options or choices then ask a question such as Which do you like best? Why?

Current Event. Present a news item or important local or global event.

Example*. Create a problem based on a current event or local news*

Definition. Provide a word and/or definition. Or, just a word and ask for a definition, illustration or example. Be sure to cite the source. Ask a question that requires a definition.

Example*. Let's create a visual glossary! Share an image that helps to visualize a concept from the Chapter 5 glossary. Share the word, definition, and image. Then explain how the image represents the word.*

Emotion or Feeling. Talk about a feeling or emotion related to a particular situatio.

Example*. How do you react in stressful situations? Why? What can you do to handle stress?*

Experience. Focus on personal or professional experiences and examples. Connect it to the discussion or topic. If possible, incorporate visuals such as photographs.

Example*. Share a personal experience or story about yourself.*

Engaging Activities: Discussions

Opinion. Start with an opinion and take a stand.

***Example**. Provide a statement and ask students whether they agree or disagree with this statement. Ask them to provide three reasons to support their opinion.*

Quote. Start with a quote. The quote could be from a famous person, book, news article, or interview. Be sure to use quotation marks and credit the source.

Question. Focus on questions about a topic (i.e., main idea, connection to other learning), book or movie (i.e., character, plot, setting), or problem.

***Example**. After reading about survival in the wilderness, think about your own life and skills. Are you prepared to survive in the wilderness? Why or why not? Provide some specific examples.*

***Example**. Are you at risk? What about your family members? What's the risk factor associated with particular diseases? Share the risk factors associated with a particular disease and share the potential of three people you know personally.*

Riddle or Puzzle. Pose a riddle or puzzle, then provide a reading to help solve the problem. Or, get students involved with writing their own riddles or creating puzzles.

Scenario. Ask readers to imagine a situation. Consider starting with dialog or conversation.

Statistic. How many or how much? Present a shocking statistic or one that people might question. Consider presenting this information in the form of a chart or graphic. Ask students to analyze this data.

Surprise. Begin with a shocking or amazing piece of information.

Encourage Probing Questions

Students may need help generating quality questions for their peers. Teach students to ask probing questions. The list can help you and your students extend the conversation through questioning:

Assumptions. What assumptions are you making? Are you assuming... If so, ...? Can you justify this assumption? Is this assumption always true? What if...?

Clarification. What are your most important points? How does this relate to that? Can you give an example? Can you summarize the key points? What do you mean by ...? What are the causes and effects? What are alternative viewpoints or perspectives?

Evidence. Can you provide examples and nonexamples? Can you explain your reasons? Can you justify your position? Can you cite sources that support your argument? What resources did you use to identify information? What resources did you ignore? How did you evaluate this information?

Focus. How can we approach this topic? What is the main issue and supporting questions? What alternative views can we consider?

Engaging Activities: Games

Games are an effective way to review course content and apply skills to new situations.

- Games increase emotional involvement. Information is more easily remembered when connected to strong emotions.
- Games involve decision-making skills and require students to apply knowledge of facts.
- Games increase interest in learning.
- Games involve students. People put more effort into cooperative & competitive situations.
- Games increase self-confidence.

Games involve overcoming obstacles to solve a problem, accomplish a goal or complete a task. When designing a game, you simply need four elements:

- **Goal**. What is the goal for the game? How do you win?
- **Rules**. What rules are in effect during the game?
- **Feedback**. How will progress be tracked? Is there a gamemaster in charge?
- **Motivation**. Why play the game? What can be learned?

Game Shows

- Are You Smarter than a 5th Grader
- Want to be a Millionare
- Family Feud
- Wheel of Fortune
- Jeopardy

Guidelines

- Focus on a very specific learning outcome.
- Provide a review for every answer slide
- Keep it short, around 7 questions
- Introduce, Practice, Review a topic – match activity
- If it's practice, they already need the content
- Use graphics, sounds effects to provide a different "feel" than content presentations
- Create some Powerpoint templates to share. Download PowerPoint templates you can adapt.
- Audience Respond options Use signs you distribute, only instructor sees
- Move to different parts of the room, discuss and defend the answers.
- Small groups… discuss answer and use dry erase board

Card Games

Question cards. Pick a card and match to the case, person, problem.

Patient cards. Pick a patient (i.e., headshot with description) and make a decision.

> ***Example****. Read the card: Your patient converses with you and answers most questions appropriately but is unsure of where she is or who you are. Her mental status is best described as… Place the card in the correct category: Unresponsive, Responsive to painful stimuli, Responsive to verbal stimuli, Alert*

Review cards. One table creates questions for another table. The instructor should review cards before trading with another table.

> ***Example****. Make words by matching common prefixes or suffixes with the rest of the word. This is a great game to play before class. Place words on tables before class.*

Engaging Activities: Games

Dice Games

People like to roll dice. Roll the dice to

- determine your group
- the station where you'll start
- determine the word you'll define... count down the list.
  Example*. If you roll a BLANK, then you must BLANK*
- the type of card you'll take
- the symptoms of your patient
- the order of play

Board Games

Trivia Pursuit. Draw hotwheels and use them as your playing piece. Provide four questions on each card. Roll dice to determine category of question. Topics: calls, assessment, transport, cleanup or the ABCDEs

Matrix Games. Create a game board containing topics across the top and characteristics along the side. Draw a card. Place the card into a box on a large matrix. The gamemaster checks answers.

Firehouse Football

- Draw a football field on a whiteboard, print out the PDF below and play on a table, or place the images in PowerPoint and project on a large screen.
- Divide the class into 2 teams.
- The first team chooses a type of play and the referee reads the question and marks the yardage. Easy Question: 5 yards, Medium Question: 10 yards, Difficult Question: 25 yards (but if you miss it, there's an interception)
- On fourth down, you can choose a field goal card.
- Play four quarters of 12 minutes each so you can play the game in an hour.

Hands-on Games

- Fracture Splinting with tongue depressors
- Scene Evaluation – matchbox cars and town carpets
- Safety Scenario – toy gun and knives
- Scenario Fixing – What's missing from this situation

4Cs

Present a slide with the 4Cs:

- **Components** are parts of a concept. Example: checking airway
- **Characteristics** are features of the concept. Example: speed
- **Challenges** are obstacles. Example: weight of patient
- **Characters** are people involved. Example: patient

Each team works on a C. 3 minutes to collect, 3 to analyze.
Present ideas. Look for commonalities, differences, surprises and missing data.

Scavenger Hunt

Provide a sheet with patient information. Collect the equipment needed. Check for accuracy.

Engaging Activities: Interactives

Increasingly, courses are using online games and simulations.
Go to the workshop website for links in each category.

- **Interactive Games**
- **Skills Practice**
- **Models and Animations**
- **Reference Sources**
- **Timers and Grouping Tools**

Final Assessment

Think about ways to assess "participation."

Self-check. Ask students to write about their experience.

Peer check. Pair students and ask them to check off each other.

Instructor check. Checklist of completed activities. Check on accuracy through testing.

Engaging Activities: Keys to Success

Use the following ideas to guide your work:

Start small.

Chunk content and match activities.

Adapt what you already do.

Replace activities that aren't effective, efficient, and appealing.

Take risks and expect some problems.

Learn from failures.

Share your successes.

Conclusion

Times change,... but quality skill sets transfer to any situation.

Prepare students for real-world disasters... through meaningful learning experiences.

Balance theory and practice... by combining activities that stress cognitive, afffective, and psychomotor domains.

To Do List

Create a list of at least three things you're going to do immediately.

Create a list of long-term goals for course development.