



Training the Millennial Generation

Presented by:

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adapted from:

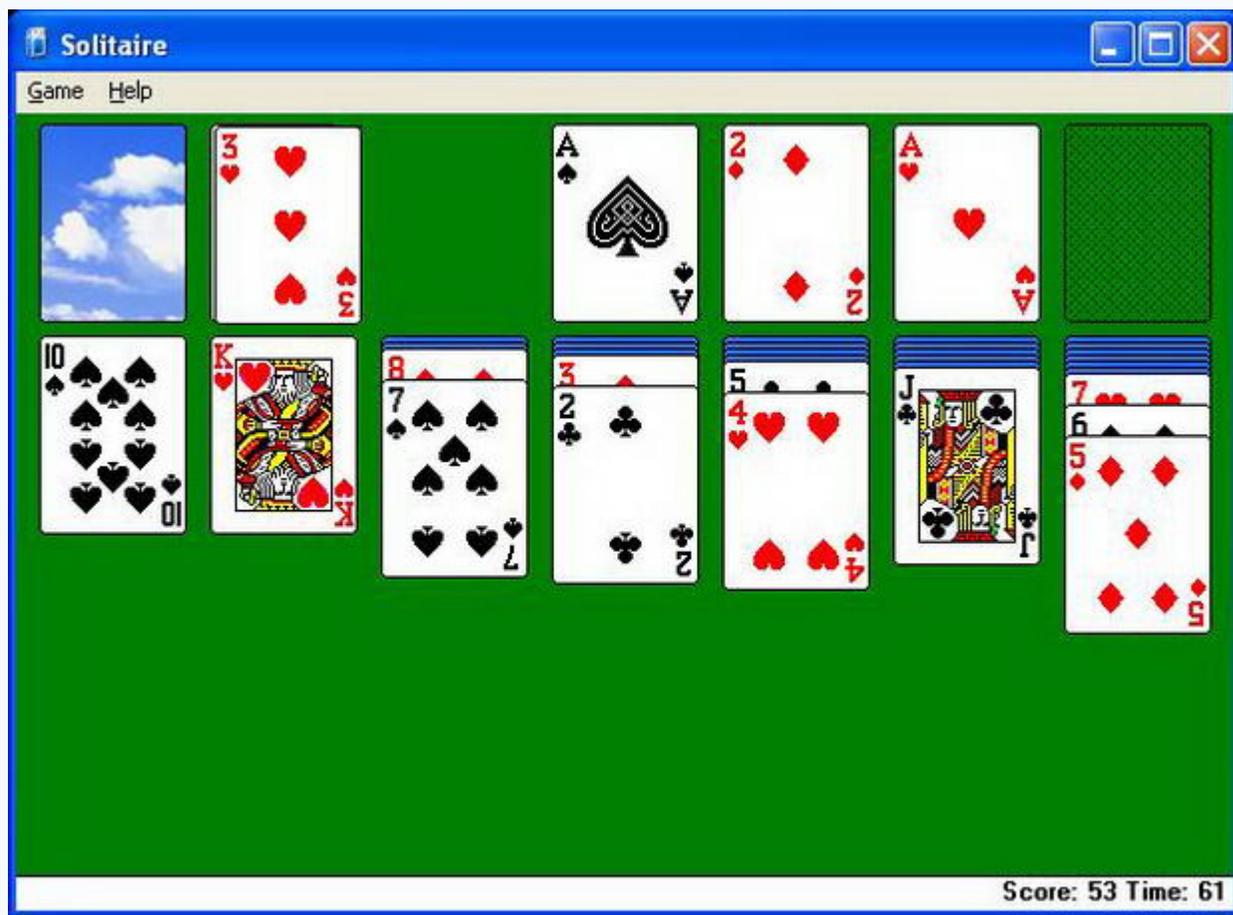
The Millennial Generation & “The Lecture”

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Thoughts? Frustrations?





Training the Millennial Generation

- Low tolerance for boredom
- Require high levels of stimulation
- Interest in working in groups
- Traditional lecture may not be as effective



Training the Millennial Generation

“The method of teaching ten years ago is not the method to achieve learning with this generation.”

- Monaco & Martin



Training the Millennial Generation

Type	Learning Modality	Retention Rate
Passive	Lecture	5%
	Reading	10%
	Audio-Visual	20%
Active	Demonstration	30%
	Discussion Group	50%
	Practice by Doing	75%
	Teach Others / Immediate Use	90%



Objectives: You Will...

- Increase Strategies to Maximize Your Return on Investment
- Apply Millennial Generation Principles to Your Lecture Design
- Review & Discuss Feedback & Suggestions



Dr. Hart's Informal Resident Survey

- What techniques seem to keep you the most engaged during lectures / educational experiences?
- What teaching methods would you like to see us incorporate into conference more in the future?



Characteristics

	Baby Boomers	Generation X	Millennial Generation
Years	1946-1964	1965-1980	1981-2000
Childhood	Post WWII	Latch-Key Kids	Helicopter Parents
Positives	Work hard, motivated to succeed	Self-reliant, independent, adaptable	Realistic, innovative, <u>value education, like challenges</u>
Negatives	Materialistic, Competitive, Workaholics	Slackers, Aggressive	Over-confident, require excess affirmation, <u>impatient, demanding</u>



Characteristics

	<u>Baby Boomers</u>	<u>Generation X</u>	<u>Millennial Generation</u>
Years	1946-1964	1965-1980	1981-2000
Learning Desires	Lectures	Wants hard facts	<u>Collaborative Activities</u>
	Wants to know "what" first		Wants to know "why" first
	Values knowing	Value variety & speed	Values doing Short attention span



Resident Feedback

“We did ‘Ortho Jeopardy’ a few weeks ago and I thought it went very well. Everyone was engaged and discussion was spontaneous and frequent. For a mid-morning lecture, this was the first time I’ve seen no one asleep or on their computers.”



Resident Suggestions

- “More opportunities to interact with peers in small groups”
- “More opportunities to work in small groups, moderated by faculty”
- “More opportunities specific to different levels of training.”



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Resident Feedback

“You’ve got 30-60 seconds until I’m moving on to a game on my phone like Angry Birds.”





Adults Learn Best When They...

- Understand the Value & Relevancy of the Information
- Analyze & Solve Real Problems
- Are Actively Involved
- Learn Consequences of Actions & Get Immediate Feedback



Resident Suggestions

- **Understand the value & relevancy of the information**

“High yield learning keeps me interested. Give me the newest, most up to date, solid evidence...things that will affect my practice in the here & now, things that I can’t afford not to know, most common things, most worrisome things, most common mistakes. Keep it simple and straightforward. I can’t possibly comprehend 20 years of detailed data on a topic.”



Resident Feedback

- Analyze & solve real problems

“I didn’t remember anything because it didn’t help me reason thru the problem, give me a different context about how I was thinking about the problem, or change my treatment plan.”



Resident Feedback

- **Are actively involved**

Q: “What techniques seem to keep you the most engaged?”

A1: “When I can play around with something and figure it out on my own, or go through a case, or do it in real life, with someone available to assist if I need help.”

A2: “Direct application of things I am learning...”



Your First Smartphone...





Digital What?

<u>Digital Natives</u>	<u>Digital Immigrants</u>
Want info quickly, “twitch speed”	Want info slowly, “normal speed”
Multi-tasking, parallel processing	Limited tasking, singular processing
Pictures & video before texts	Text before pictures & video
Less critical thinking & reflection	More critical thinking & reflection



Resident Suggestion

“Lecture without too much text on slides; more pictures or graphs/charts with the speaker filling in the details with what they say.”



Slide Design

- Introduces / summarizes material
 - “Should convey the point within 5 seconds.”
- People can read or listen, not both
- 7 x 7
- Visual learners



Resident Suggestions

- **Learn consequences of actions & get immediate feedback**

“Interactive Quizzes”

“Audience Response System...or lower tech is fine too”

“Question and Answer”



Millennial Generation





Frustration During Lectures?

- How do I cover all of this material in one hour?
- The students are on their computers!
- The students are sleeping or talking.
- Others...



Solutions





Lecture

What is the purpose of a “lecture”?



Historical





Modern Times

Purpose of a Lecture: TEACH APPLICATION OF KNOWLEDGE

- You are the “facilitator”
- Learner-centered
- Assist advancement from novice to expert
- Clarify information already in print
- Communicate information not in print



Quotes

“It could well be that the faculty members of the 21st century college or university will find it necessary to set aside their roles as teachers and instead become designers of learning experiences, processes, and environments.”

- James Duderstadt 1999, former President of the University of Michigan



Quotes

“...Need to move from instruction to construction...”

- Sandars & Morrison, “What is the Net Generation? The challenge for future medical education”



Transfer

- Near transfer: similar situations, easier to apply
- Far transfer: different situations, harder to apply



Lecture Design

- Introduction
- Overview / Objectives
- Body / Core Information
- Conclusion

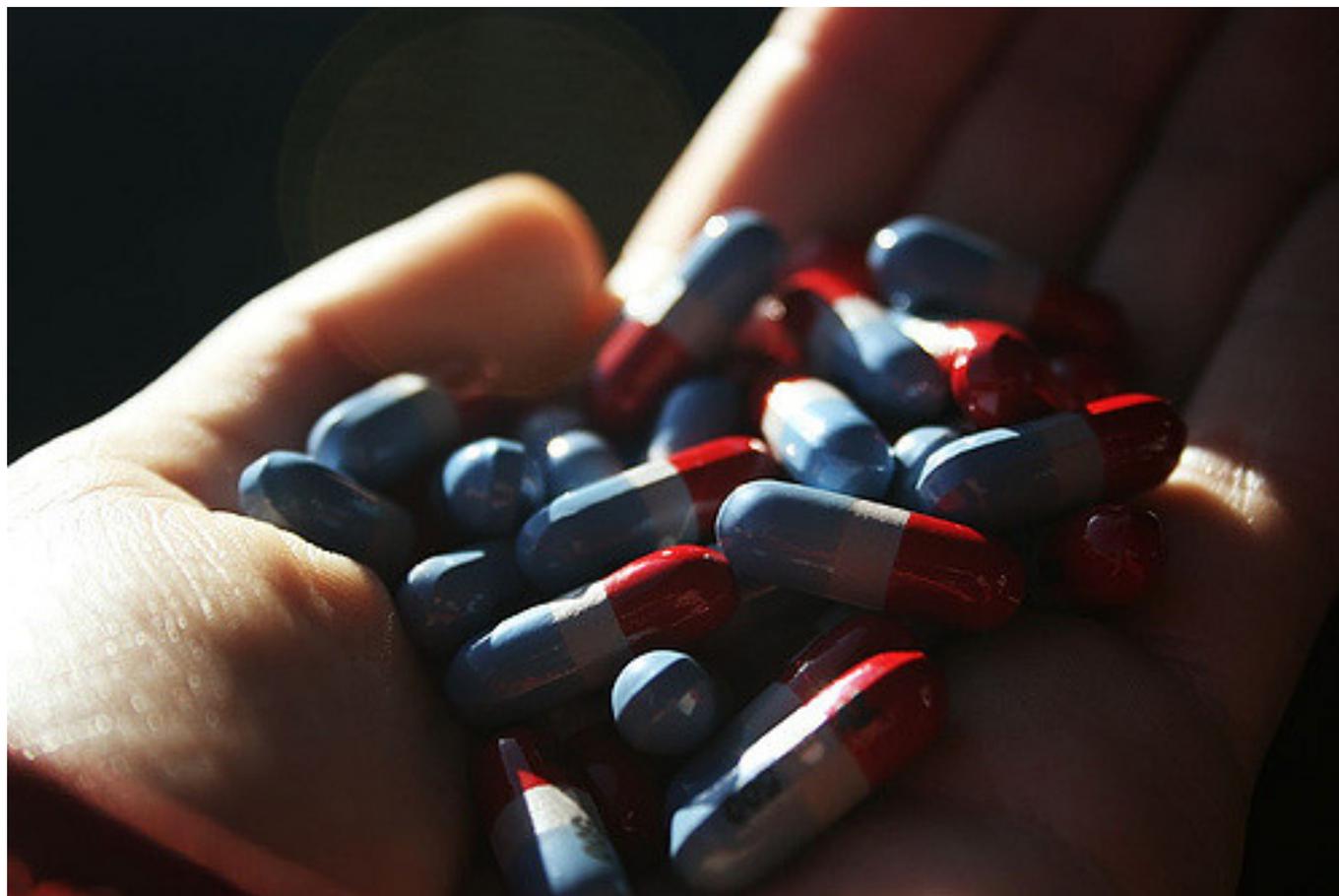


The Introduction

CAPTIVATE & MOTIVATE!



The Introduction





The Introduction: Be Enthusiastic!

“...When competing with cyberspace for the attention of students, enthusiasm is important.”

- Roehling et al., “Engaging the Millennial Generation in Class Discussions” 2010



The Introduction: Be Enthusiastic!

“If not engaged by what is going on in the classroom, Millennial students will seek alternate stimulation or sources of information by surreptitiously texting or surfing the internet. When competing with cyberspace for the attention of students, enthusiasm is important.”

- Roehling et al.



Resident Feedback

“You’ve got 30-60 seconds until I’m moving on to a game on my phone like Angry Birds.”





How to Captivate & Motivate?

- Ask a question
- Case-study / Problem / Story
- Relate the topic to real-life experiences
- Use video clip, demonstration, or other media



Bloom's Revised Taxonomy

Create

Evaluate

Analyze

Apply

Understand

Remember

- Anderson & Krathwohl. A revision of bloom's



Bloom's Revised Taxonomy

**Higher
Order
Learning**

Create

Evaluate

Analyze

Apply

Understand

Remember

**Lower
Order
Learning**



The Body of Your Lecture

- CHALLENGE = KEEP THEIR ATTENTION!
- BE INTERACTIVE
- Average adult attention span = 10-15 minutes



Resident Suggestion

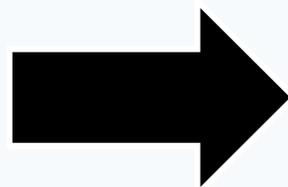
“Lectures that focus on a few key points and explore them in depth, rather than trying to cover a large amount of material.”

DON'T TRY TO COVER EVERYTHING!



Creating an Interactive Lecture

Goal: Bring learners from passive to active state





Passive Learning

“Lecturing is frequently a one-way process unaccompanied by discussion, questioning, or immediate practice, which makes it a poor teaching method.”

- Richard Sullivan & Noel McIntosh, “Delivering Effective Lectures” Paper #5, December 1996



What is Active Learning?

“Active learning pedagogies develop, evaluate, and revise mental models and schema used to understand the world.”

- Graffam

- Requires Engagement
- Promotes problem solving & critical thinking
- Promotes reflection



Resident Suggestions

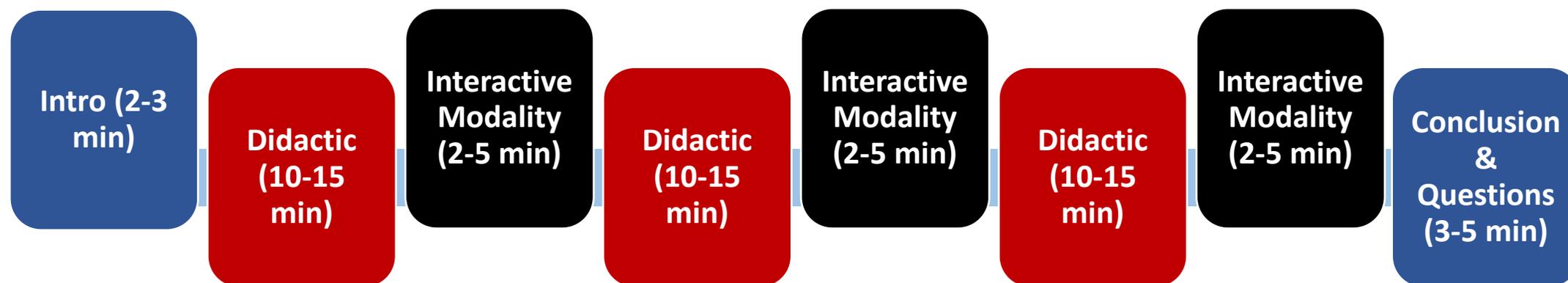
“More discussion based format with ‘expert’ available, kind of like a chalk talk”

- Discussion
 - Deeper understanding of material
 - Longer term retention
- Millennials want to come to their own conclusions



Creating an Interactive Lecture

- Goal: Bring learners from passive to active state



- Didactics \leq 10-15 minute blocks
- Keep your interactive tools relevant



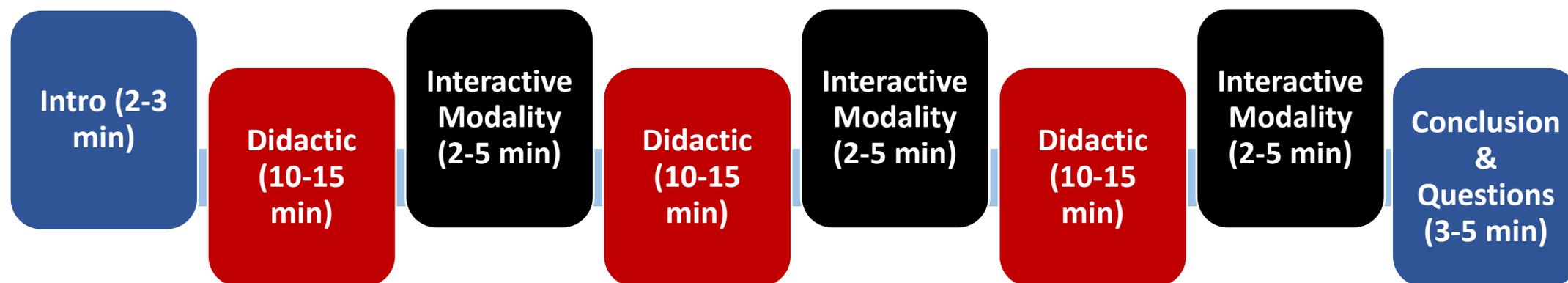
Distractors!





Creating an Interactive Lecture

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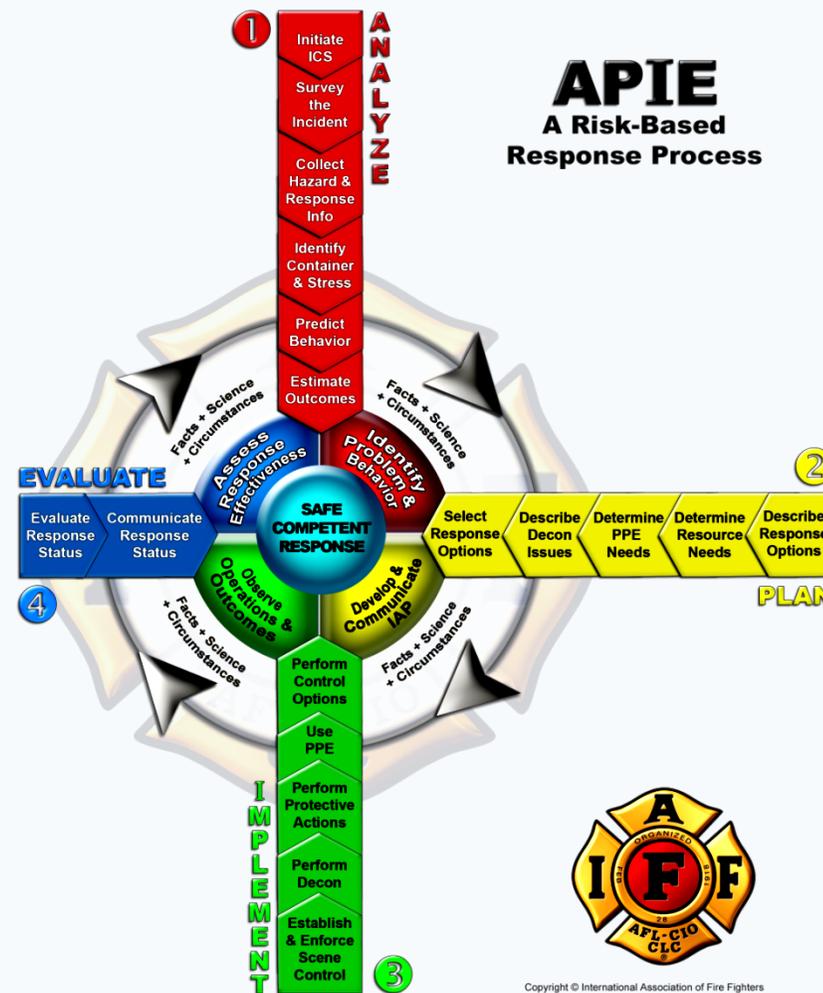
Interactive Modalities

- Questioning / Quizzing the Audience
- Pause Procedures
- (Sub)group discussions
- Examples: Photo, demonstration, video, case, story
- > 1 lecturer, guest expert / panel, structured debate
- Games / Technology
- Concept Mapping



Concept Mapping

- Millennials are visual learners
- Active Learning





Resident Suggestions

“Want to go through how the workup, approach, treatment, etc. would change with varying patient presentations”

(i.e. creating illness scripts)



Resident Suggestions

“Why not have the core content lectures recorded ahead of time and available online? Then, the expectation is that residents watch it sometime the week before conference.

Then we could use our time where we are all together in conference to break into small groups and discuss key points further, go through cases, ask faculty questions, etc.”



Students on computers...

- Should we involve their phones / computers???
- ARS from web, Twitter, text, etc.
- Use to look up answers to questions



Concluding Your Lecture

Don't forget this!

Questions first



Determining Your Effectiveness

- Direct Application
- Asking for Learner Feedback
- Other



Summary: Training Millennials

- Short attention span & low tolerance for boredom
- Desire collaborative & interactive activities
- Likes to be challenged
- Values “doing” & “activated learning state”
 - You are the facilitator
- Seeks relevant & immediately applicable information
- Wants immediate feedback