

## Why Should I Change?

### Convincing Students and Faculty to Employ Active Learning Techniques

**Audience Response Systems (ARS)** can be used in active learning classrooms to break up the monotony of standard lecture-only learning experiences.

#### *What's holding faculty and students back from using them?*

- ❑ Faculty who are used to the lecture-only style of teaching, may not have been properly introduced to ARS or understand how to incorporate them into active teaching and learning experiences. ARS can provide a stimulating form of two-way communication.
- ❑ While PowerPoint can augment a lecture, it can also lead to “transferring massive amounts of information in a passive learning environment” (Forest, 2012).
- ❑ Students may be disinterested in the topic, preoccupied, or overwhelmed by the subject matter. Faculty members often comment that when they are lecturing, they look out into the audience and have no idea if the students are learning or just showing up.

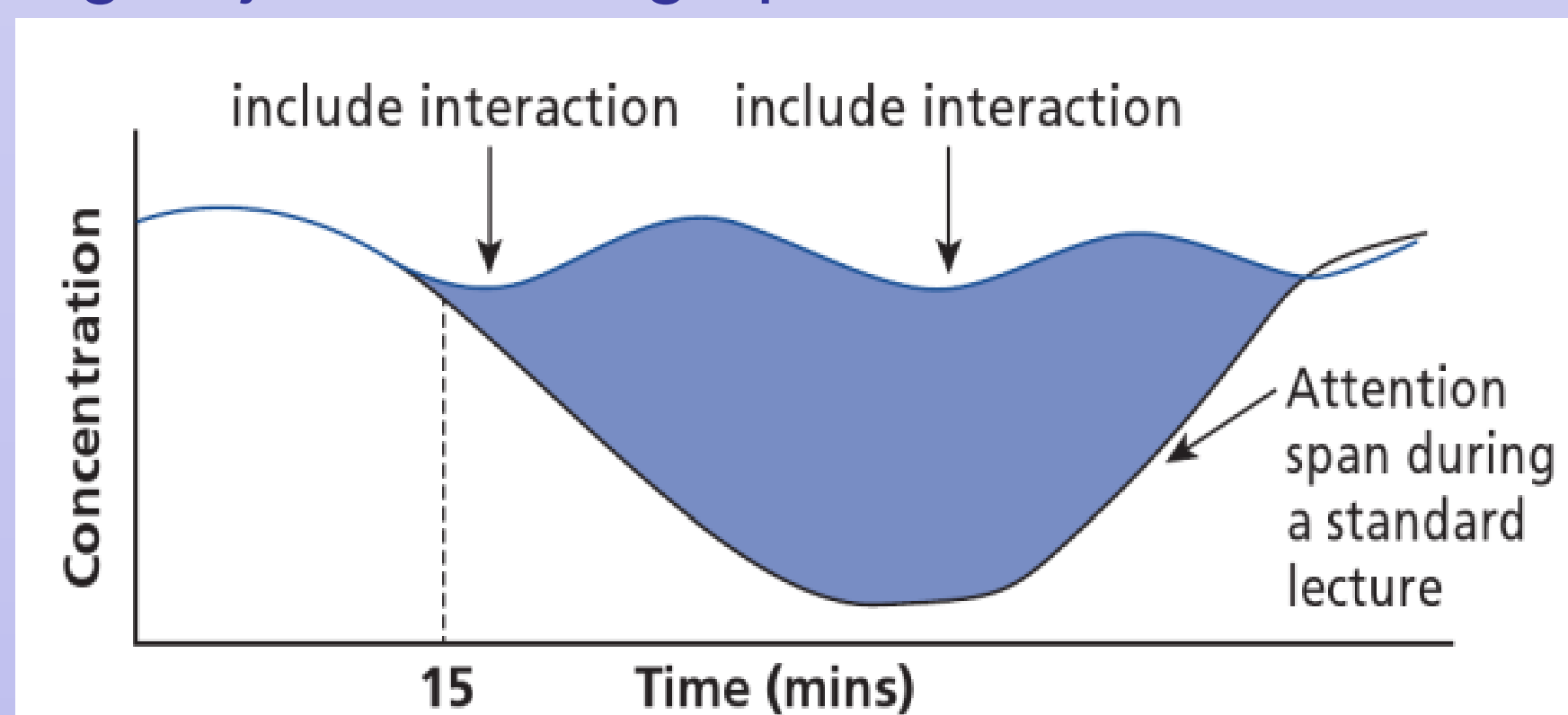


Figure 10.2 Audience concentration during standard lecture with and without interaction.  
Source: Higher Education Academy Engineering Subject Centre.(24)

Incorporating ARS into their teaching style will effectively address this issue and enhance student learning and engagement.

Students can be included in the process of discovery and provide them an opportunity to engage in discussion and construct their own understanding of difficult topics.

UIC COM uses the i>Clicker brand of ARS.



### Barriers for Adoption of ARS

- ❑ Faculty are uncomfortable with the technology
- ❑ Students might not bring their devices to class, or it does not work (or their batteries are dead)
- ❑ Activities that are not centered on student learning and achievement give the perception of busywork

## Flipping the College of Medicine on Its Side

**UIC COLLEGE OF MEDICINE**  
UNIVERSITY OF ILLINOIS AT CHICAGO

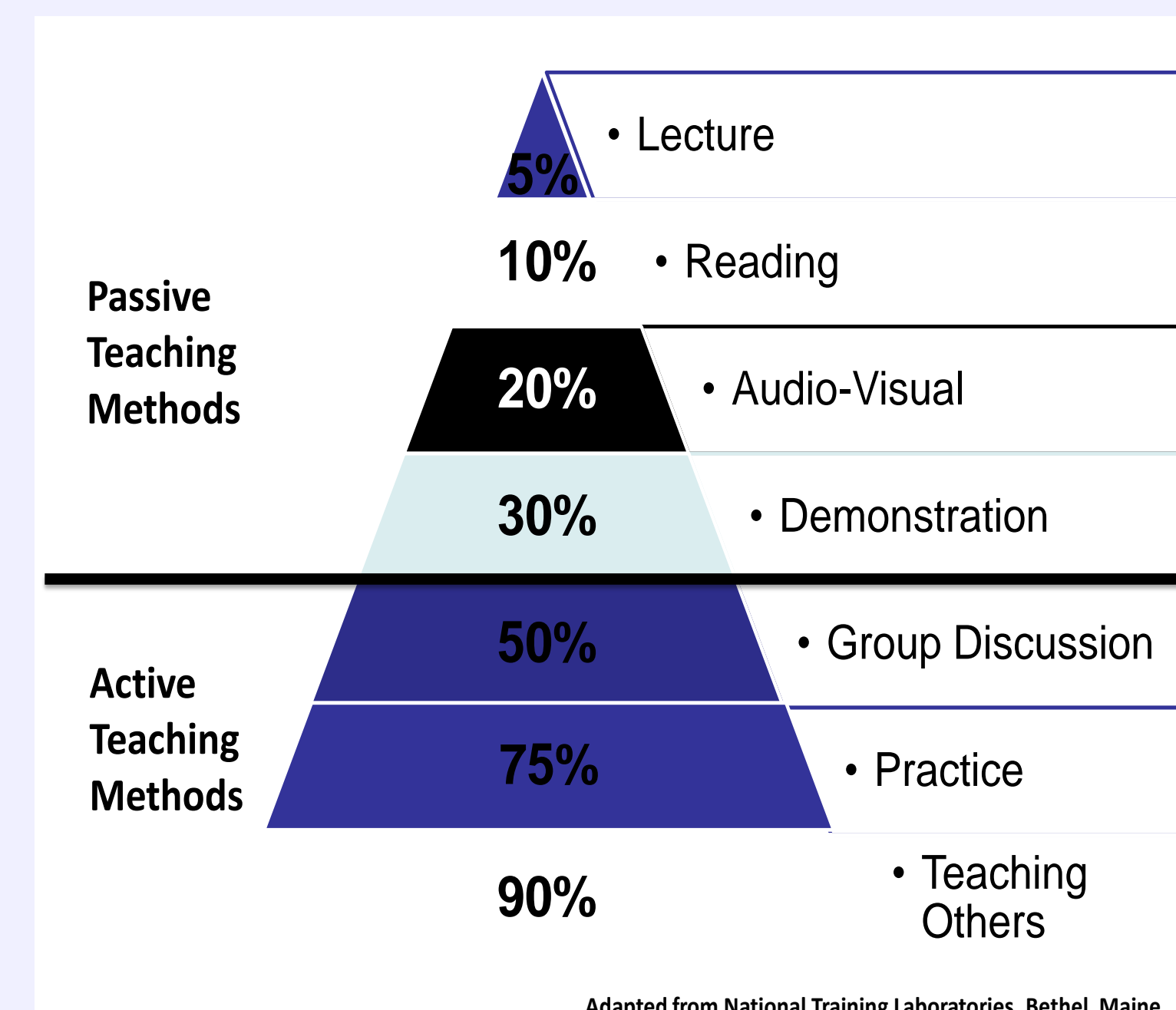
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The University of Illinois at Chicago, College of Medicine (UIC COM) is working to incorporate more active learning into its teaching, much like other medical schools across the country. Various innovative teaching methods have been implemented and evaluated, each with varying degrees of success and failure.

While large group lecture and presentation remains the easiest method for delivering content, it is also criticized for its inability to engage students in their learning and for students to absorb the information being presented.

Millennial students are naturally drawn to Audience Response Systems (ARS) because of the instant results and the anonymity it can provide. Through the use of ARS, lecturers are able to engage with students and gauge comprehension and at the same time demonstrate to the class that other students have or have not grasped a new or difficult concept.



### What do Students Say About ARS?

- ❑ Helps them show up for class and participate
- ❑ Seem to be a terrible waste of time
- ❑ Make them feel part of the class community
- ❑ Gets really loud in lecture halls when everyone is using ARS
- ❑ Help make their “voice” heard in class
- ❑ ARS are too susceptible to cheating
- ❑ Holds them accountable for learning
- ❑ Increases honesty in their feedback

Some like it, some don't...as with everything.

(Stowell & Nelson, 2007; Latessa & Mouw, 2005, feedback from a spring 2014 course)

## Ok, This Change Didn't Kill Me

### How can ARS be used in the classroom?

- ❑ Survey data
- ❑ Simple retention
- ❑ Basic understanding
- ❑ Application of factual knowledge
- ❑ Prediction / Reasoning



Left: Students in a first-year (M1) Medical Genetics course using i>Clickers to respond to questions

### How Did We Get Faculty to Start Using Them?

- ❑ Demonstrated how to effectively use ARS
- ❑ The Office for Undergraduate Medical Education (UGME) has an i>Clicker base and ~50 devices for practice – let faculty borrow to ‘play’ in order to learn
- ❑ Created documentation on how to use ARS
- ❑ Met with faculty one-on-one
- ❑ We are present and supportive (aka hand-holding)
- ❑ Work with them on question writing

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