

What do medical students really think about lectures?

Carol Nichols, PhD
 canichols@mail.mcg.edu
 Medical College of Georgia Augusta, GA



MCG School of Medicine Evaluation Team

T. Andrew Albritton, MD
 Walter Moore, MD
 Carol Nichols, PhD
 Andria Thomas, PhD,
 Peggy Wagner, PhD
 Stephanie Wragg, PhD

Medical College of Georgia Curriculum

	Phase 1	Phase 2
	Cellular & Systems Structures Gross Anatomy, Histology, & Development	Cellular & Systems Disease States- Systems Based Modules
	Cellular & Systems Processes Biochemistry, Genetics, & Physiology	↓ Fundamentals Hematology- Cardiology Pulmonary- Renal Endocrine- GI CNS- Musculoskeletal
	Brain & Behavior Neuroscience & Psychiatry	
	ECM 1	ECM 2
# Medical Students	180 (190)	180 (190)

What did we think they would say?

Adult learners prefer:

- Self directed learning
- Practical learning drawn from their own life experiences
- Task centered and experiential learning

(M. Knowles, 1970)

Studies show:

- PT students prefer lecture to group discussion in physio. course (D. Lake, 2001)
- Med students prefer lecture to SP interaction in surgery clerkship (M. Carter, 2004)
- Med students prefer lecture to computer instruction in physio. course (D. Richardson, 1997)

Methods

“Interests, Attitudes, and Approach to Learning Survey” was administered to Phase 1 (Freshmen) and Phase 2 (Sophomore) medical students in spring of 2004, 2005, and 2006.

100 question survey divided into 3 parts:

- Cognitive behavior ¹
- Attitudes toward social issues in medicine ²
- Learning environment ³

1. Mitchell, R. (1994) The development of the cognitive behavior survey to assess medical student learning. *Teaching and Learning in Medicine* 6: 161-167

2. Perlow, J. & Rothman, A.I. (1974) A scale to measure attitudes toward psychosocial factors in healthcare. *Journal of Medical Education* 49: 385-387

3. Marshall, R.E. (1978) Measuring the medical school learning environment. *Journal of Medical Education* 53: 98-104

Cognitive Behavior Survey Questions

1=Never 2 3 4 5 6 7=Always



- Do you prefer discussion of case studies to basic science lectures?
- Do you prefer independent learning to class lectures in the basic sciences?
- How often during lecture does your mind wander?

Methods

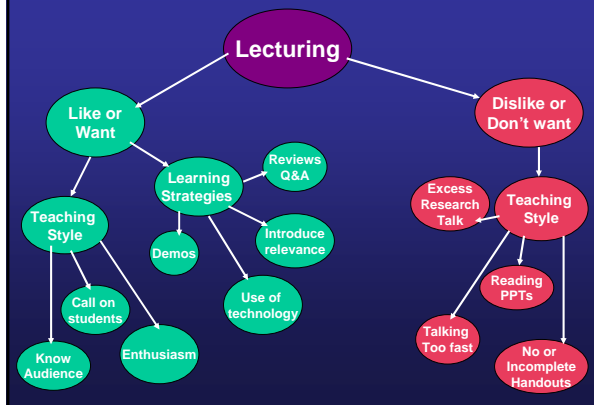
Conducted student led focus groups with Phase 1 and Phase 2 students during the summer of 2004-2006.

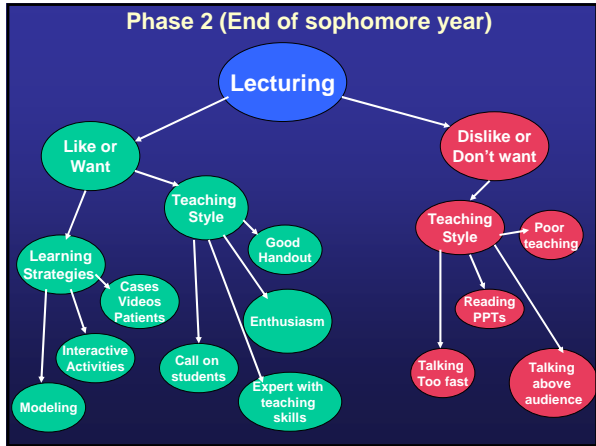
- Asked twelve trigger questions or statements to determine how students view the basic science years of their education.
- Four of those questions assessed student opinion of teaching techniques.

Focus Group Trigger Questions

- I am most engaged in class when...
- I am least engaged in class when...
- What techniques, other than lecture, have you seen used *effectively* to teach basic science topics?
- What techniques, other than lecture, have you seen used *ineffectively* to teach basic science topics?

Phase 1 (End of freshman year)





Summary of Themes

	Like	Dislike
Phase 1	<ul style="list-style-type: none"> • Demonstrations • Reviews • Q&A sessions • Relevance 	<ul style="list-style-type: none"> • Excess research commentary
Phase 2	<ul style="list-style-type: none"> • Cases, Videos, Patients • Modeling • Educator with content expertise 	<ul style="list-style-type: none"> • Talking above audience • Poor teaching skills
Both groups	<ul style="list-style-type: none"> • Enthusiasm • Calling on students • Interactivity 	<ul style="list-style-type: none"> • Reading Power Point presentations • Talking too fast

Lecture Hours and Number of Lecturers

	Phase 1	Phase 2
	Cellular & Systems Structures	Cellular & Systems Disease States-Systems Based Modules
	Cellular & Systems Processes	
	Brain & Behavior	
	ECM 1	ECM 2
Total # Lecture hrs.	466	460
Total # Lecturers	97	160

Summary

- 65% of Phase 1 and 56% of Phase 2 medical students think lecturing is an effective teaching method for the basic sciences.
- Students would like to see more discussion of case studies and more independent learning to complement lectures.
- Students appreciate the use of interactive learning strategies during lectures.
- By the end of Phase 2, our medical students want teaching expertise in addition to content expertise.

What we are implementing at MCG

- Introducing “Core Clinical Lecturers” for Phase 2
- Offering faculty development workshops through Career Development and Education Center
- Curriculum Review Process
 - Technology
 - Self directed learning
 - Alternatives to lecture
 - Audience Response System
