LectureTools:

A Powerful Web-Based Alternative to Clickers

Presented by

Perry Samson — samson@umich.edu

Welcome back **BlueSkies**! Sign Out - Settings - Mail - My Quick Menu

iGoogle

Google Search | I'm Feeling Lucky

Advanced Search
Search Preferences
Language Tools

Google Showcase.

Change theme from Classic | Add stuff »

Top Stories

Guard Remembered as 'Soft-Spoken, Gentle Giant'
Washington Post - all 4987 related »

Swine Flu Set to Garner Pandemic Status
ABC News - all 2814 related »

Reformists hope Iran vote will unseat Ahmadinejad
Reuters - all 2580 related »

NYT > Home Page

- In Iran Race, Ex-Leader Works to Oust President
- U.S. Commander in Afghanistan Is Given More Leeway
- Doctors' Group Opposes Public Insurance Plan

Nature Reports: Climate Change

- Best practice for biochar
- Impeccable timing
- Risky response

Quotes of the Day

How my achievements mock me!
- William Shakespeare

Sports Scores

MLB | NBA | NHL | ☆

◀ Thu Jun 11 ▶ All MLB teams

Cardinals Marlins	10:10 AM
Pirates Braves	11:10 AM
Rockies Brewers	12:05 PM
Tigers White Sox	12:05 PM
Cubs Astros	12:05 PM
Twins Athletics	1:35 PM

Scores - Standings Edit settings

Music

Weather

Boulder, CO

52°F
Current: Mostly Cloudy
Wind: N at 0 mph
Humidity: 89%

Thu	Fri	Sat	Sun
67° | 50°	72° | 54°	74° | 54°	79° | 54°

CNN.com

- Family lives with pain of little-known disorder
- Holocaust museum closed in wake of shooting
- Obama 'shocked and saddened' by shooting

Dictionary.com Word of the Day

redivivus: living again; revived; restored.

Presented By::

New Car Clearance
Dealers are going out of business, all vehicles are on

Rain Mist
Mount Pleasant, PA
68.2 °F
Overcast
Port Townsend, WA

My Agenda

- MARKETING
- FULFILLMENT
  - Demonstrate what LectureTools does
  - Show what's been learned
  - Guide you to set up your own course
  - Where's this going?

LectureTools

My LectureTools | Logout

USER:
Perry Samson
COURSE:
Extreme Weather

- My Courses
- Lecture Selection
- This Lecture
  - Lecture Slides
  - Activities
  - Animations
  - Print Lecture
- Links
- Instructions

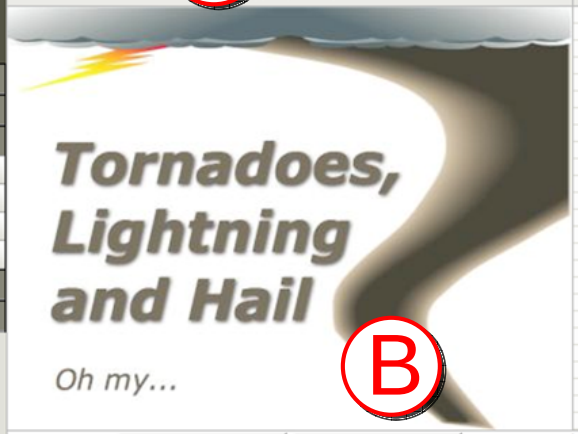
Play Podcast

G

Lecture Slides for: W…, April 9, 2008

My Notes

Rate



B

A

Draw on this ↑ slide | Ask a question

Your notes ↑ have been saved.

Ordered List:
Tornado bearing down

A tornado is on the ground in your town you should (rank)

1. Go to the southwest corner of basement
2. Go to northeast corner of basement
3. Open windows
4. Close windows
5. Jump into bathtub
6. Hide under bed
7. Run like banshee
8. Drive like banshee

F

D

Fujita Scale: F0

This scale of tornado is entry level and while menacing, not particularly destructive.

Maximum Wind Speeds	Typical Effects
40-72 mph	**Gale Tornado.** Light Damage: Some damage to chimneys; breaks twigs and branches off tress; pushes over shallow-rooted trees; damages signboards; some windows broken; hurricane wind speed begins at 73 mph.

E

Draw on this ↑ slide | Ask a question

Your notes ↑ have been saved.

LectureTools Questions

https://www.lecturetools.org/question/studList

Q: can you please redefine global warming potential?

it's the rate at which it can be a greenhouse gas much more strongly than carbon dioxide

Q: Why would CO2 have the same global warming potential for 20, 100 and 500 moves? Wouldn't it decrease?

CO2 is sort of the standard that all other gas… compared to. So CO2 will have a 1, and the other ones are … So regardless of time, it will always be the standard. Of … 0 years scientists realize say CH4 should be the sta… it will have a GWP of 1. It's an index so to speak, not a con…tion.

C

Q: why does potential of N2O increase from 20 to 100 yrs

Over time N20 accumulates more and more because it has such a long lifetime compared to carbon dioxide

Q: how can a number get bigger as you go from 20 years to 100 years? for example HFC 23 ???

perhaps because the HCF23 has a long lifetime, so say you release 3 units in the atmosphere today (just making up a number), that will be in the atmosphere for about 260 years. if we release 3 more units tomorrow, that will overlap with the one from today. In other words, it's effects are cumulative b/c it's so long lasting in the atmosphere. There are other factors involved.

Q: Why is methane worse if it has a shorter life span?

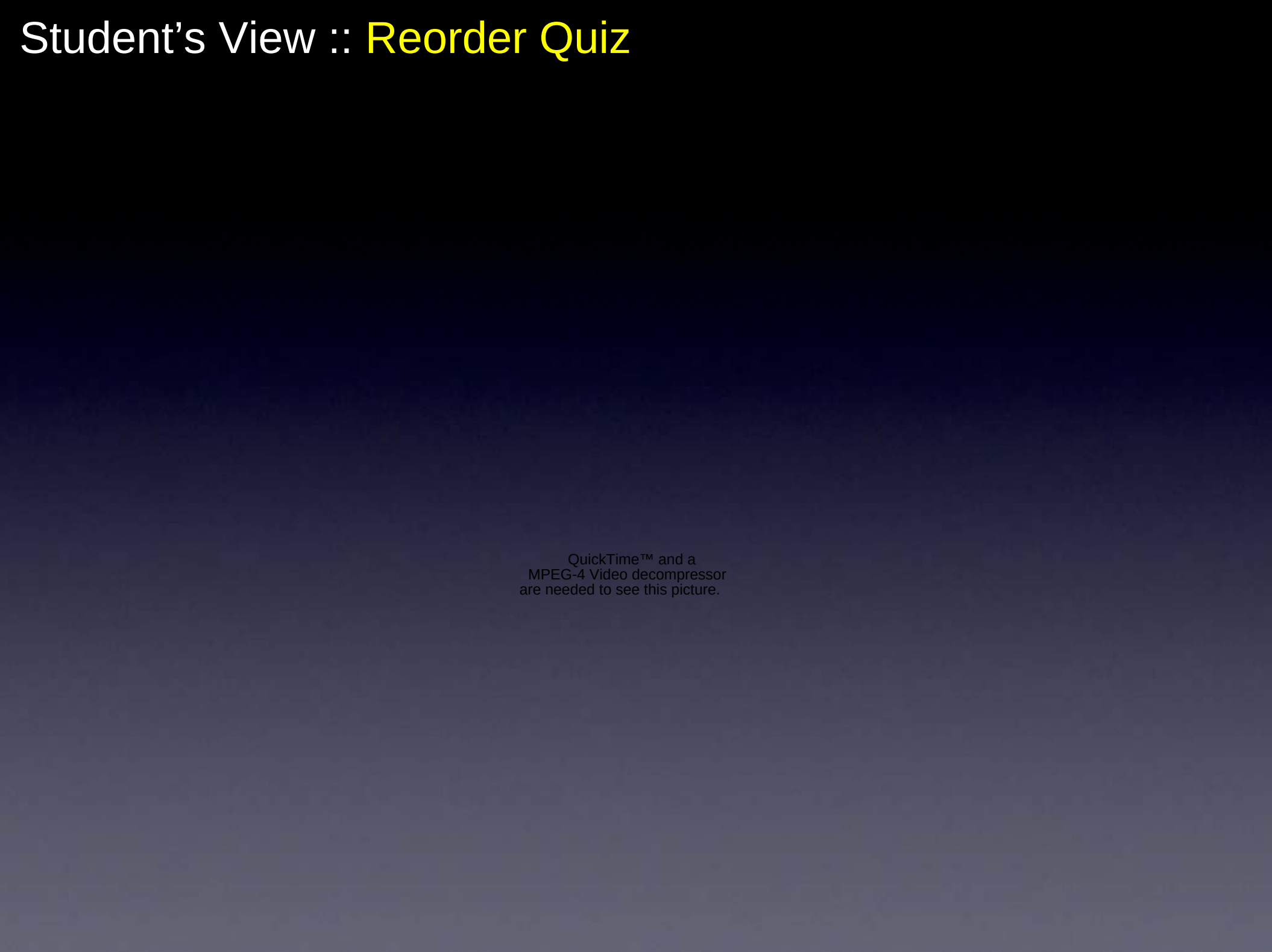
Methane has a much faster reaction time with certain molecules in the atmoshpere compared to other compounds

Q: Sorry, but I don't understand what those numbers refers under lifetime and GWP.

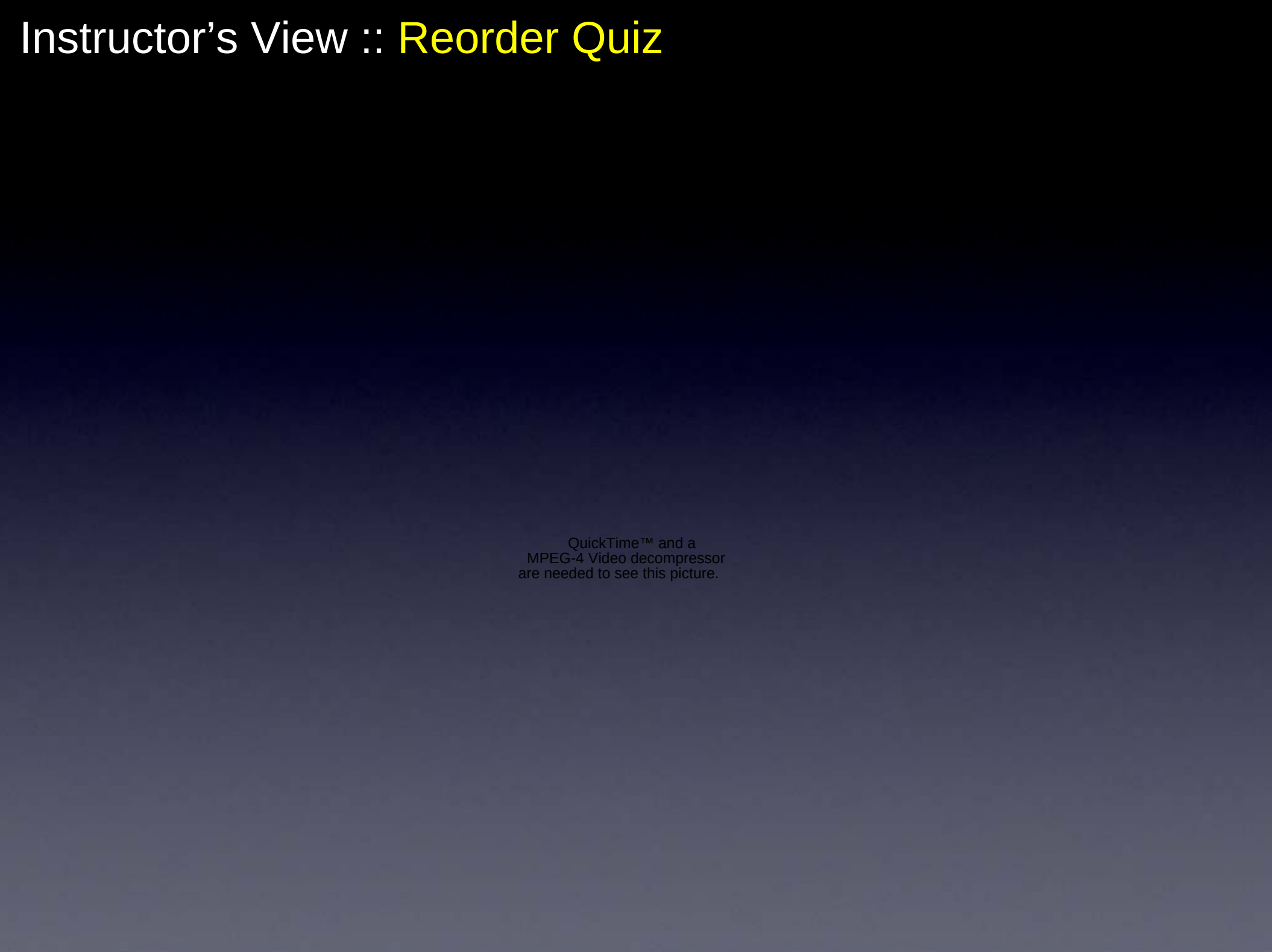
Under lifetime, it's the number of years that the gas will be in the atmosphere, and it was explained by prof. Samson in class. See a previous slide. GWP gives an idea of the potential of the other greenhouse gases have relative to CO2 (which is 1)

Done www.lecturetools.org 1 Error

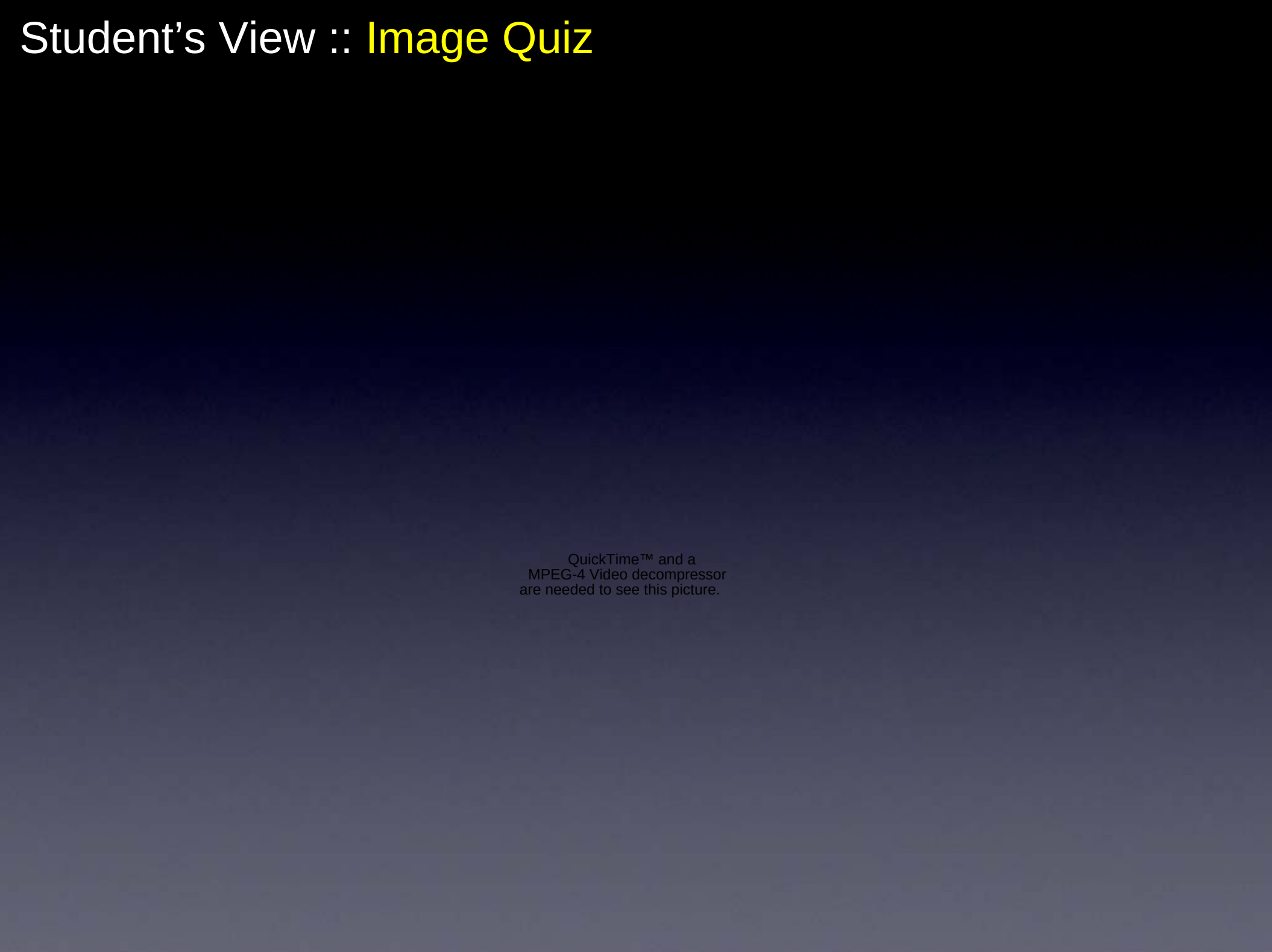
Student’s View :: Reorder Quiz



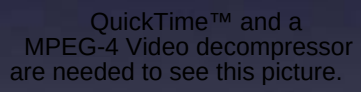
Instructor’s View :: Reorder Quiz



Student’s View :: Image Quiz



Instructor’s View :: Image Quiz



Student's View :: Social Networking

FRONT OF CLASS

				Matt LaChance							Elizabeth Raschke		Perry Samso
	Paul Schmidt	Jennifer Gregory	sahil saluja		Leslie Shellito		Sarah Ward	Connor Field					
Lauren Thams		Megan DeShong		Marsheda Ewulomi	Heather Lucier	Heather	Michaelene Dye			Sarah Bush		Jamie Ticknor	Lauren Schmandt	Jeffrey Chang	
Steven Anderson	Ryan Leach			Elaina Peterson				Emma Stevens					Mark Beaudry		
	Teya McCockran							Adrienne Reed	Shane Malott				Kelly Clawson		Eric Rodrigu
Martha Stortz			Heather Dorer		Veronica Cetnar		rtney kman	John Birney			Anna Mickols	Erika Mayer			
Brian rnstein	Meredith Rogan		Veronica Snoddy			Casey Herman	chel latz	Shannon Eagen	Oliver Nakad	Christina Barkel		Rebecca Siegel			Melissa Nacy
obert venson			Dillon Mehrberg		Jackie Endres	Elisabeth Peters	chael hultz			Michelle Weatherdon	Jeremy Tyler				
	Meredith Reynolds		Noah Jacob	Albert Ong	Elizabeth LaBelle		Mark Wilhelm		Mark Leemon	wenmian shao	Stacia Simonsen	Michelle Wong	Stephanie Kunkel	Teresa Sinelli	
Laura Pople		Yolanda Cossio		Neesha Sarkunaseelan	Slyvia Moh Sze Tan		Adam Richards	Rebecca Segel	Chelsea Samples-Steele	Carolyn Somes	Mari Yamanami	Gabriel Suprise	Sarah Adams		zachary fortier
Chase asters		Brandon Breslow		Joseph Taverna	Kelsey Hagberg	Paige Bennett	Peter VandenToorn	Nicole Morack	Christopher Johnson	Benjamin Trachman			Bridget Hunt	Amanda Ghourdjian	

Heather Lucier

Year: Freshman
Major: Undecided
Living: Oxford

Change Seat
Refresh

Not in Lecture:

Katie McKeiver
Aneisha McDole
tristin llewellyn
Angela Wang
Ashley McNees
Scott Granger
Melanie Killips
James Larkin
Sagar Patel
Joseph Krotkiewicz
LaToya Williams
Jessica Asbill

LectureTools

Username:
Password:
Login
Forgot your password?

Not Registered?

Student Registration
Instructor Registration

Main | Overview | For Students | For Instructors | Student Registration Instructions

WELCOME TO LECTURETOOLS

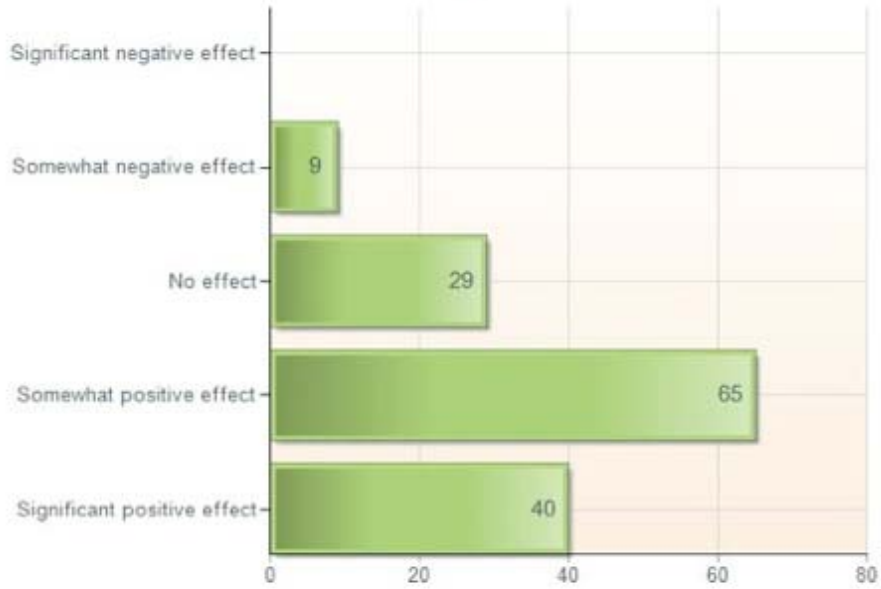
Learning in large introductory classes is a challenge in today's college environments. Students in these classes often feel anonymous and disconnected from the class experience, which may affect their ability and/or motivation to learn. Instructors likewise grapple with the low degree of interaction and inability to reach students individually.

LectureTools is designed to provide a class experience by:

1. Enabling note-taking synchronized to lecture slides,
2. Providing opportunities to pose questions electronically during lecture,
3. Including a complete personal responder system to participate actively in class activities and
4. Tools for self-assessment of confidence of understanding.

OUTCOMES: *Current semester students report they feel more attentive, more engaged, and learn more with LectureTools and vastly prefer it to clicker systems! [refresh page to see additional plots]*

Do you feel that the use of your laptop in this class has affected your learning?



LectureTools in the News

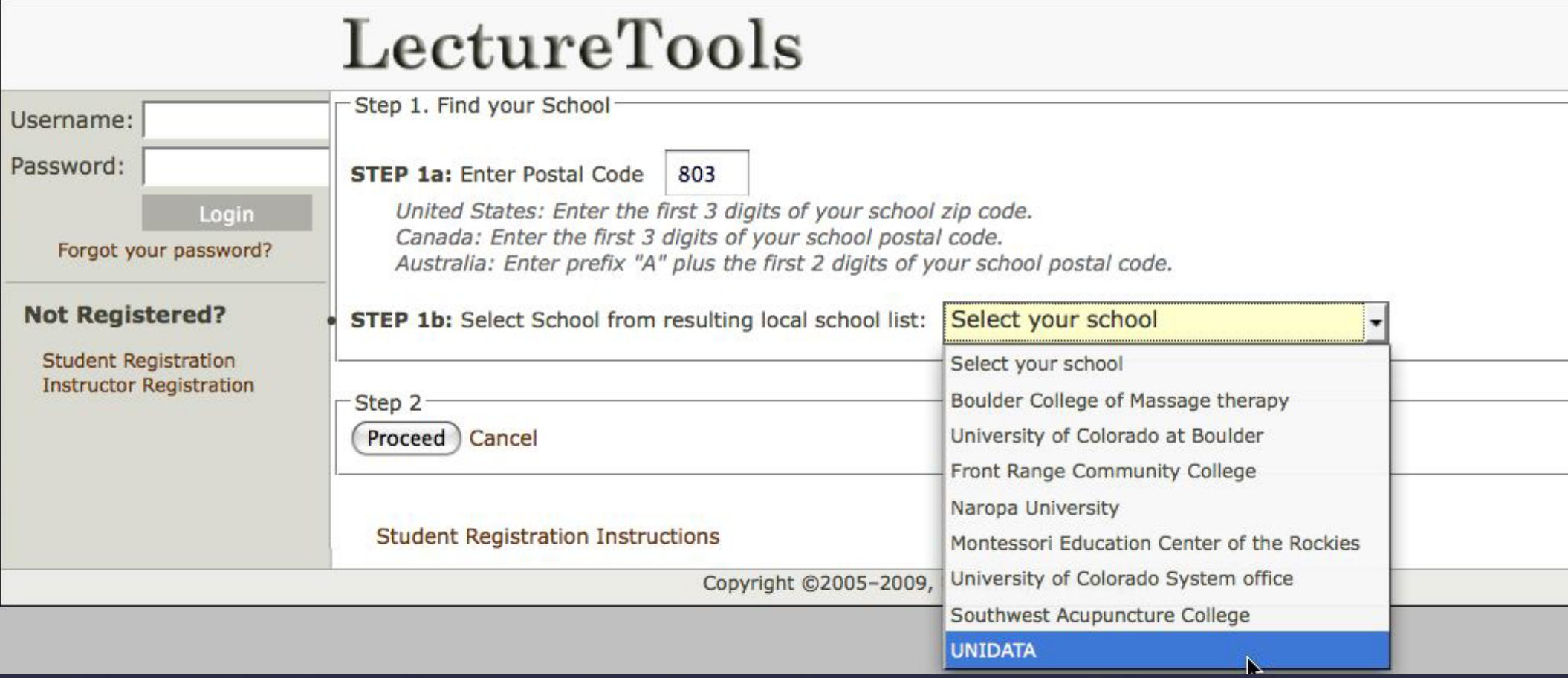
http://www.lecturetools.org

22 April, 2009 Instructors can now search and add Learning Objects from MERLOT and the National Science Digital Library from within LectureTools.

13 April, 2009 University of Michigan selects Prof. Perry Samson, lead designer of LectureTools, as recipient of "2009 Teaching Innovation Prize."

24 Feb, 2009 Software & Information Industry Association (SIIA) selects LectureTools as finalist for CODiE Award in categories of "Best Educational Use of a Technology Device" and "Best Postsecondary Instructional Solution."

2009 SIIA //CODiE// FINALIST



Answers to Anticipated Questions

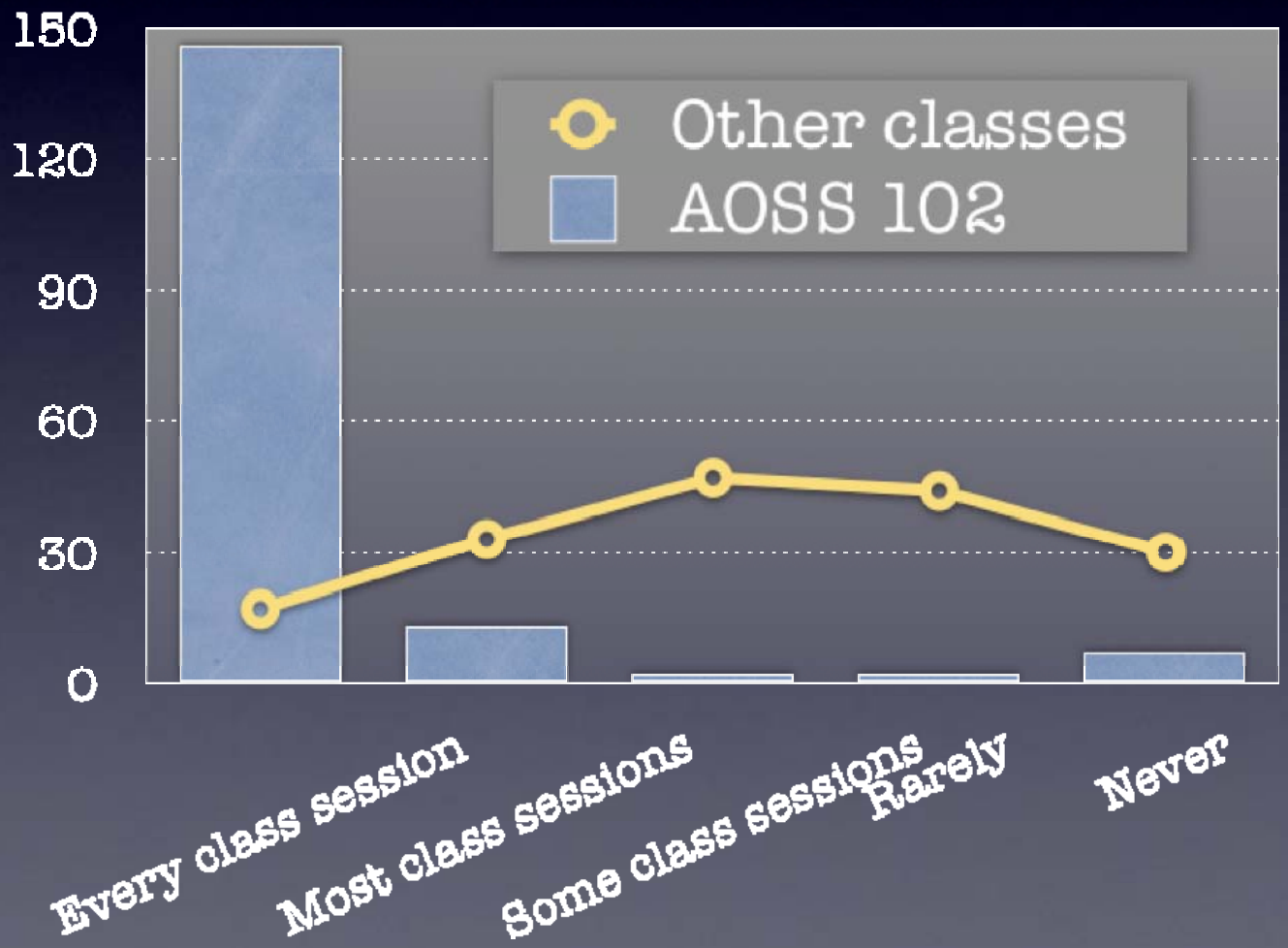
Zip Code =	803xx
Term =	Spring
Year =	2009
Course =	LectureTools 101

My Agenda

- Demonstrate what LectureTools does
- Show what's been learned
- Guide you to set up your own course
- Where's this going?

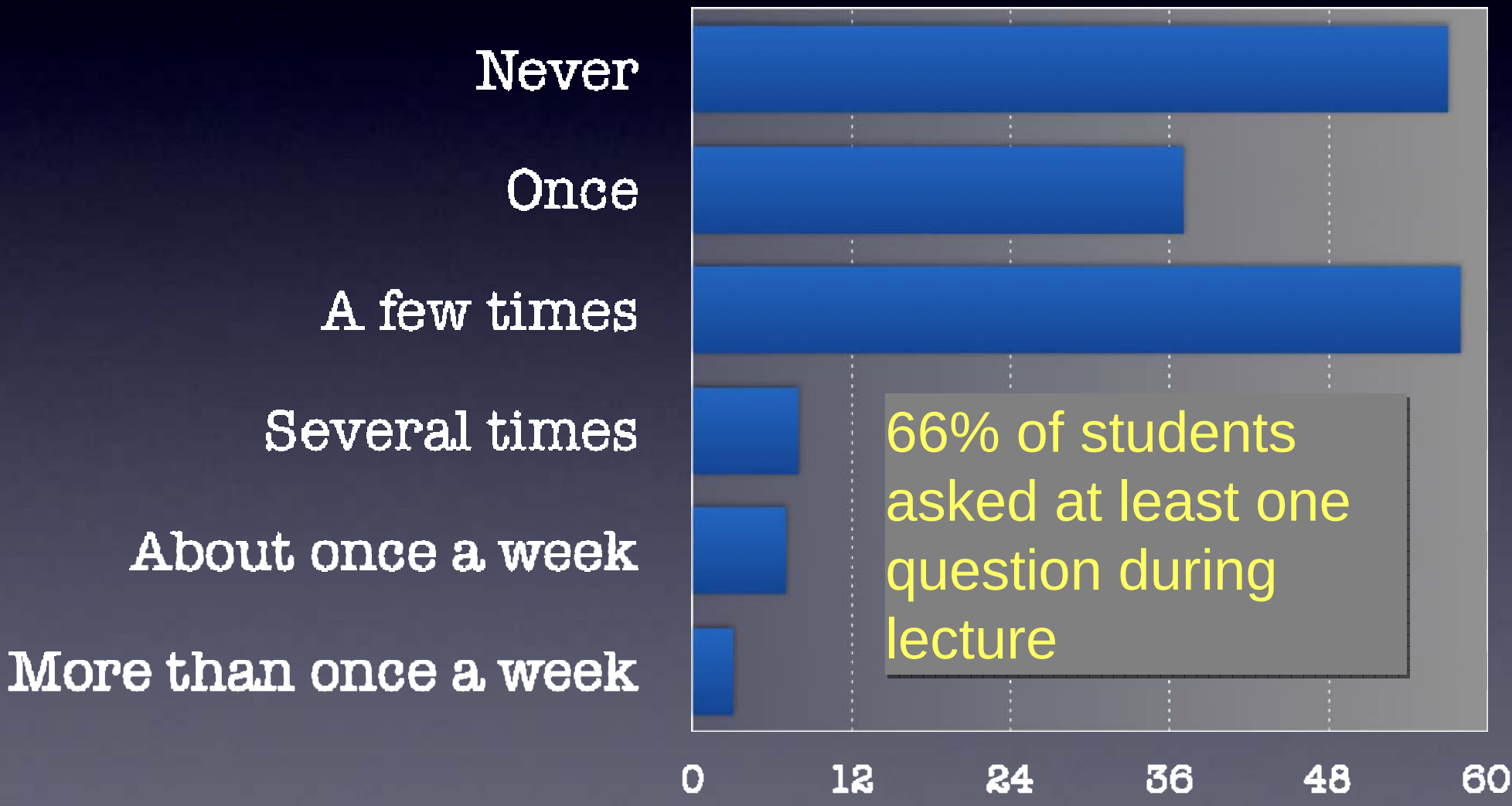
Change in class

- Students voluntarily bring laptops to class



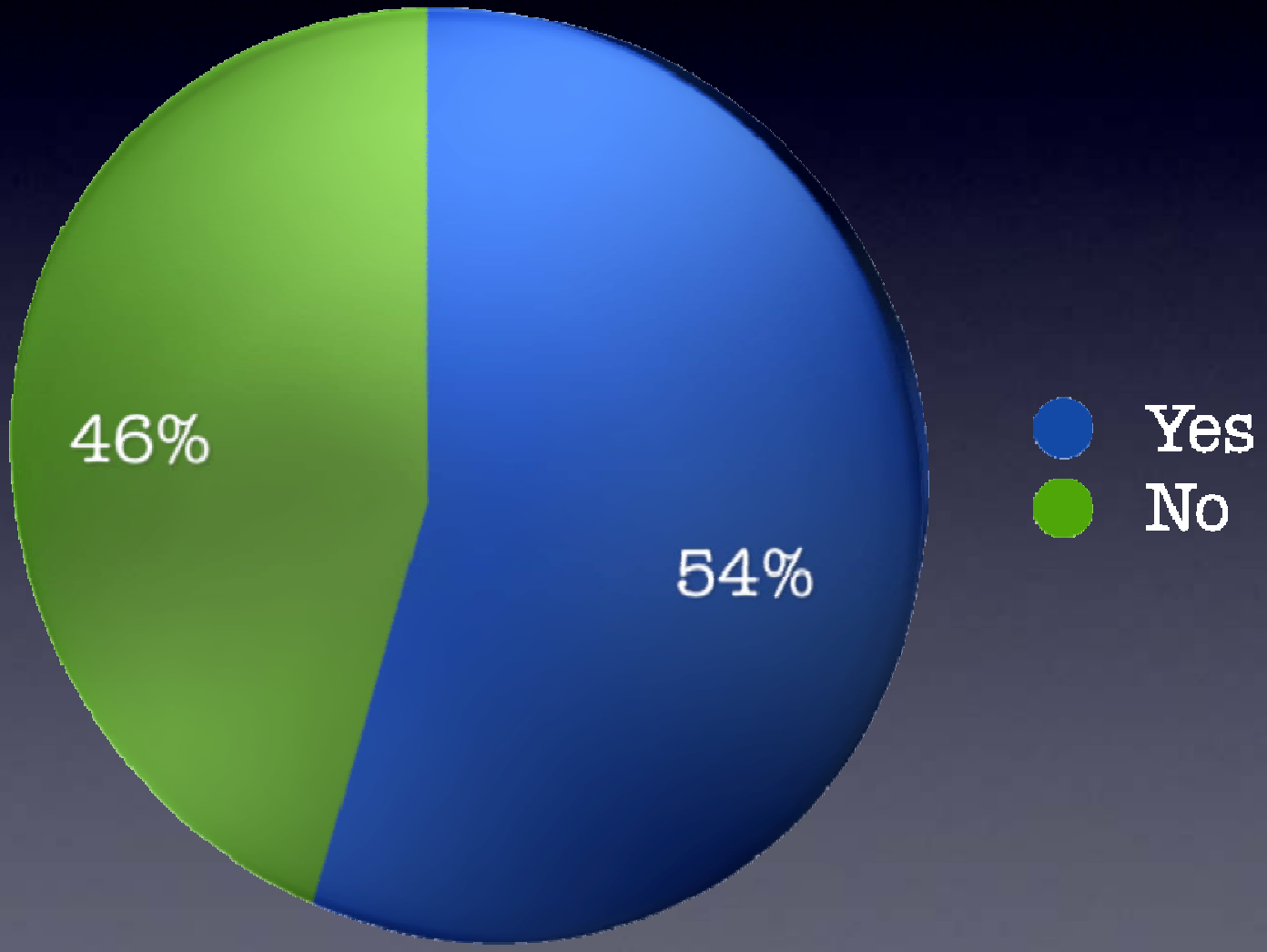
Change in class

- Students ask more questions



An Alternative to Clickers

Have you used 'clickers' (like Qwizdom) in other classes?

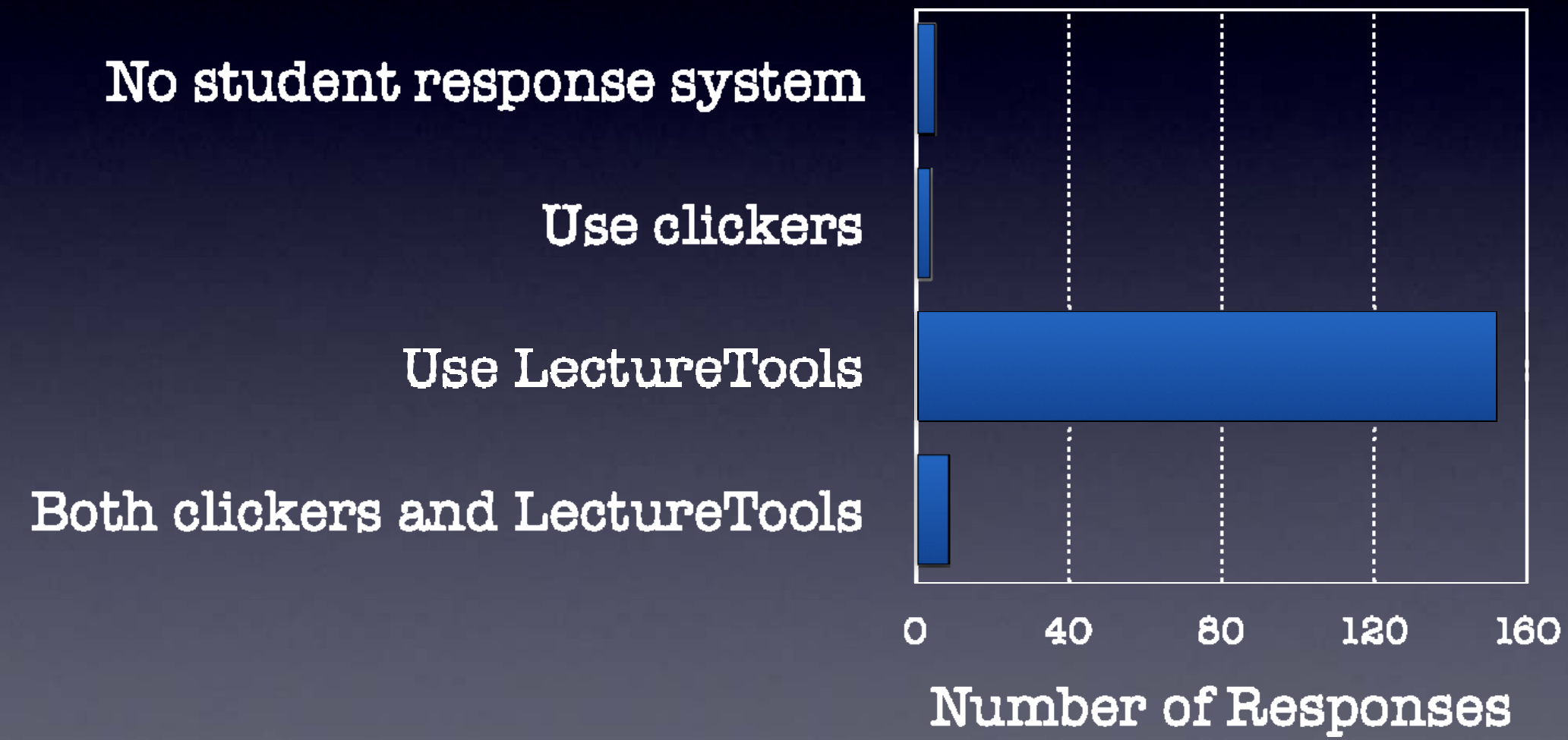


Critiquing Clickers

- Design
- The scope of questions are limited
- Students can’t ask questions
- Not integrated with other learning strategies
- Use
- Students feel they’re used mostly to take attendance
- Question design is key.

An Alternative to Clickers

Given the option which would you prefer:



Student Feedback:

1. I really prefer the use of lecturetools compared to "the clicker".

2. I feel that lecture tools is very efficient and really helps me stay organized.

3. I feel that lecturetools is a much more interactive system than the clicker. It is very easy to access and use, and provides a multitude of note taking options.

4. Printing out 10 pages of slides for every class is a horrible waste of paper. This system is extremely efficient and very well put together.

Student Feedback:

5. I only wish that I had more classes using this system as it would save me a lot of money and a lot of headaches.

- I find the fact that I can ask questions directly to a GSI and get an immediate answer (or read others' questions and see those responses) to be really helpful

- My favorite feature, however, is the fact that this is all available online, and for free, which is $35 less than "the clicker."

- I think it's far superior to Quizdom. I've found that most people seem to use Quizdom only as a way to check attendance.

Faculty Concerns:

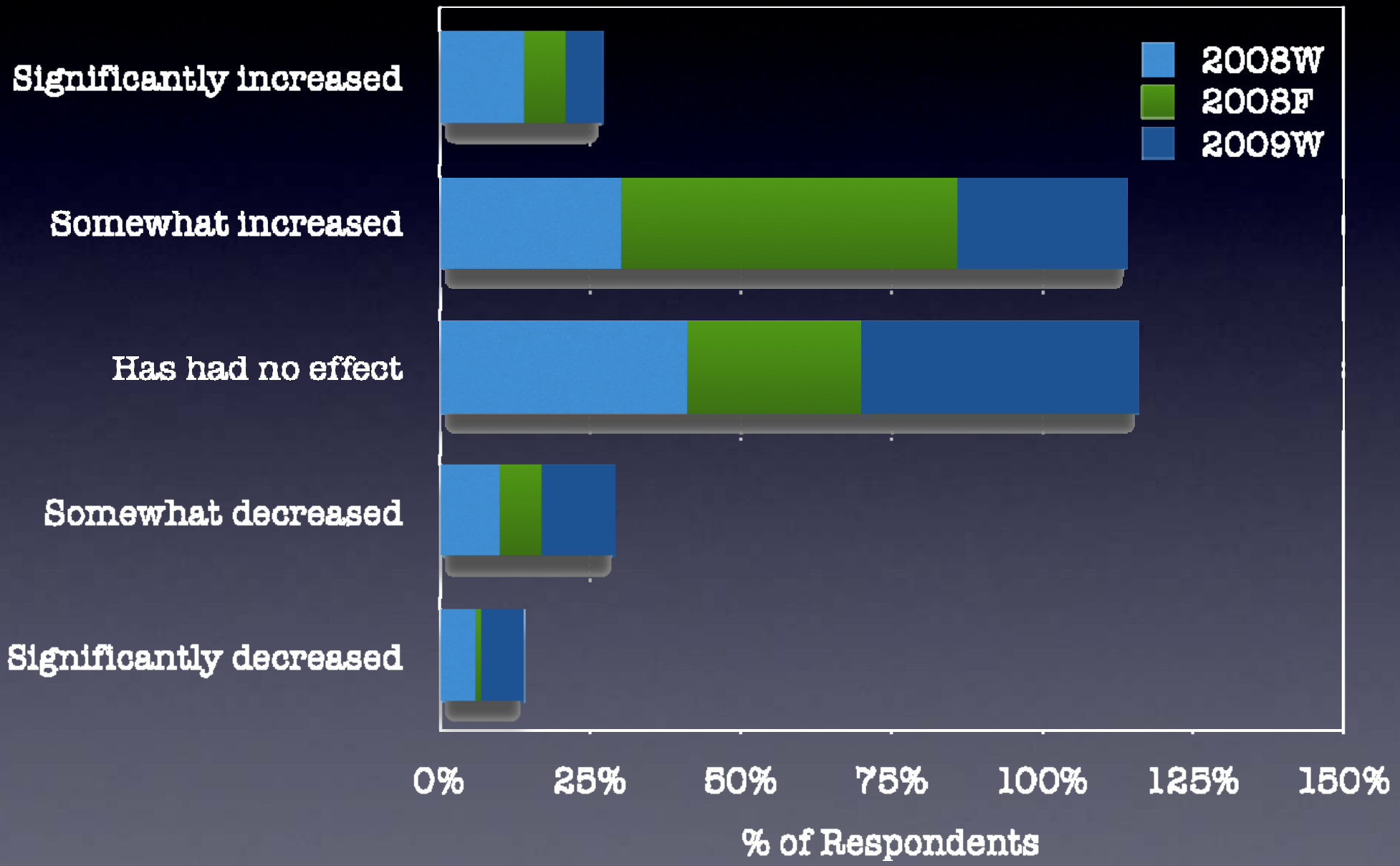
1. To what degree will the introduction of laptops into class introduce distractions?

2. To what degree will the introduction of laptops into class change attentiveness?

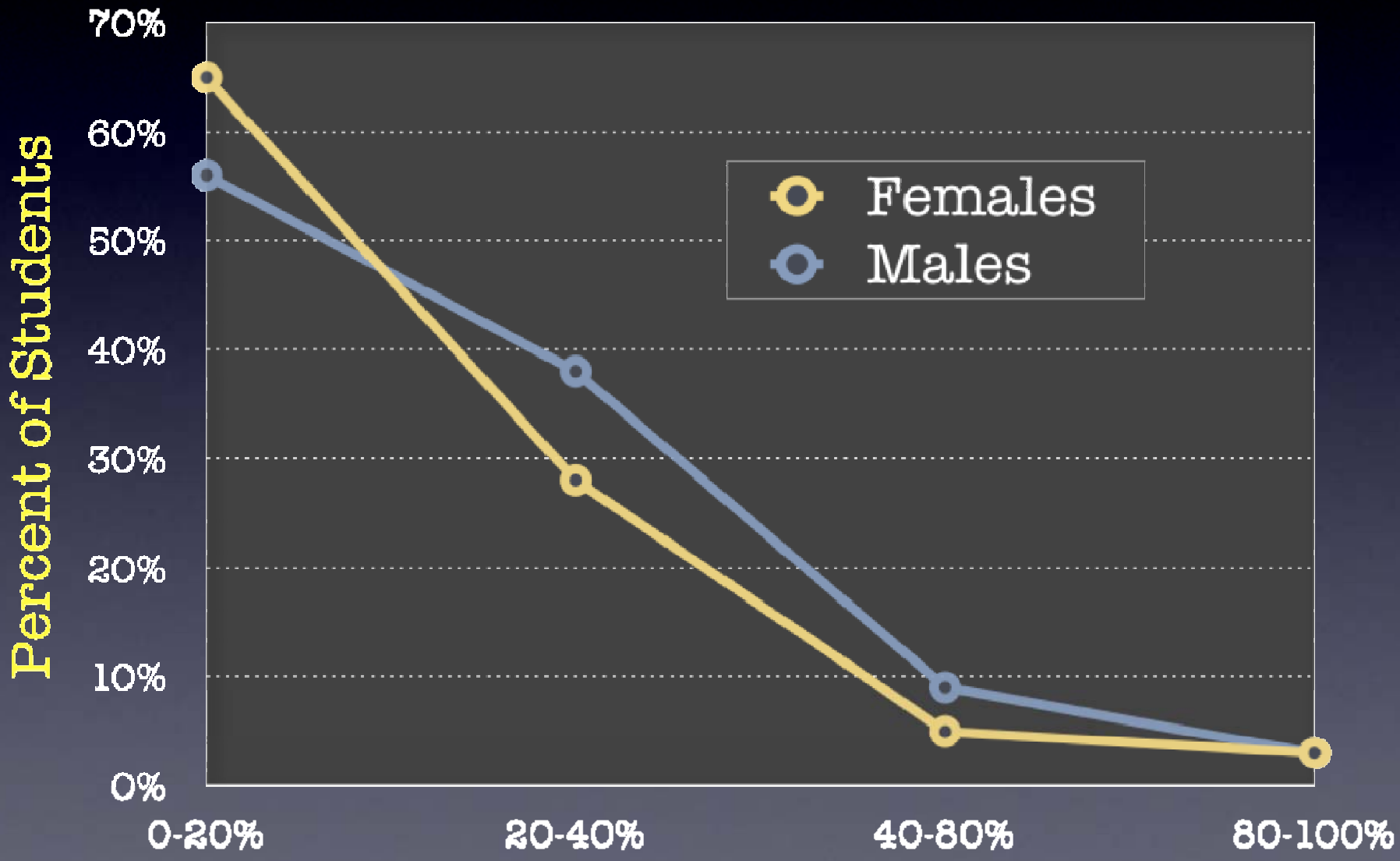
3. To what degree will the introduction of laptops into class change engagement?

4. To what degree will the introduction of laptops into class change student learning?

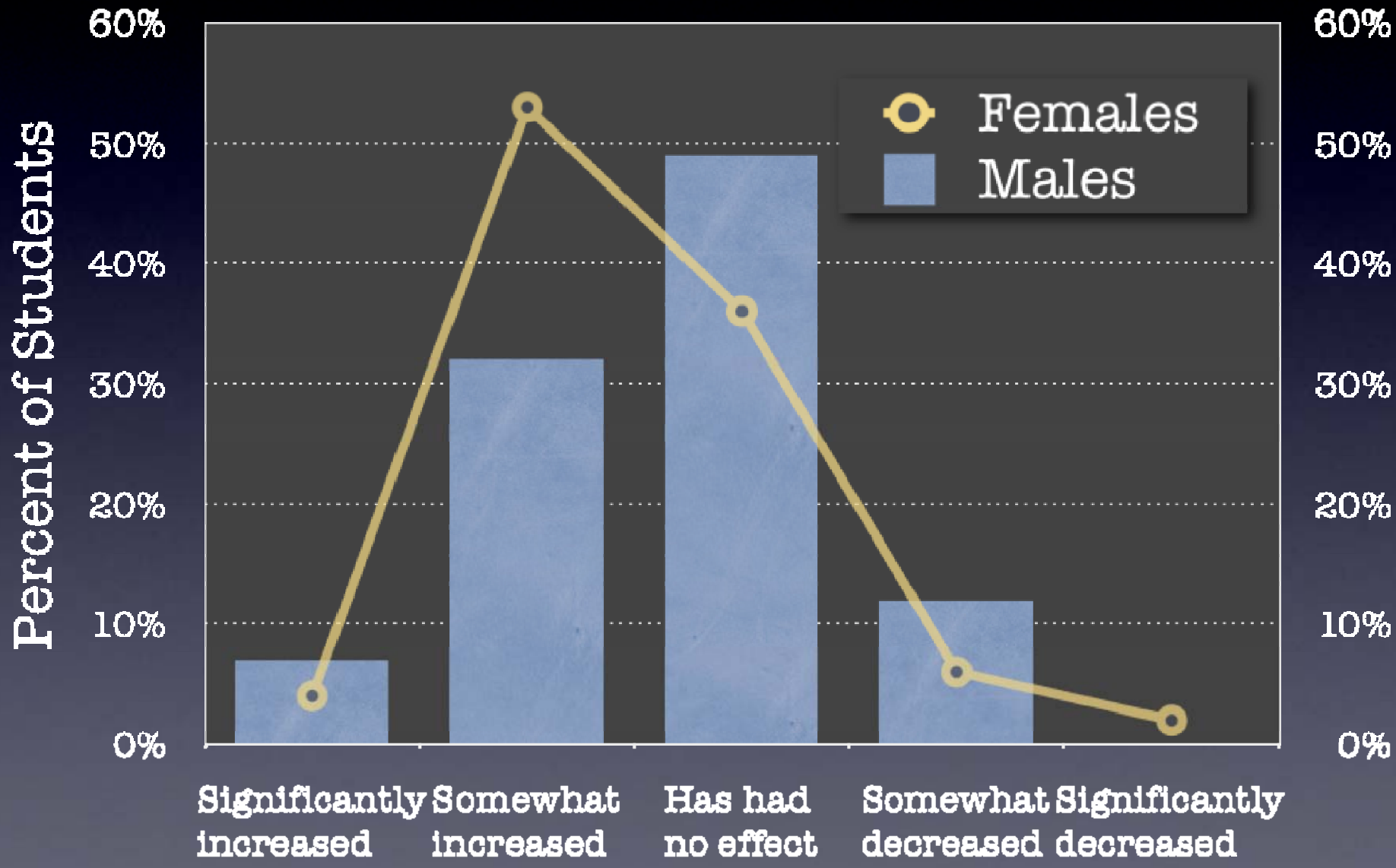
“How do you feel that your use of laptops in this class has changed the time you spend on tasks unrelated to the lecture?”



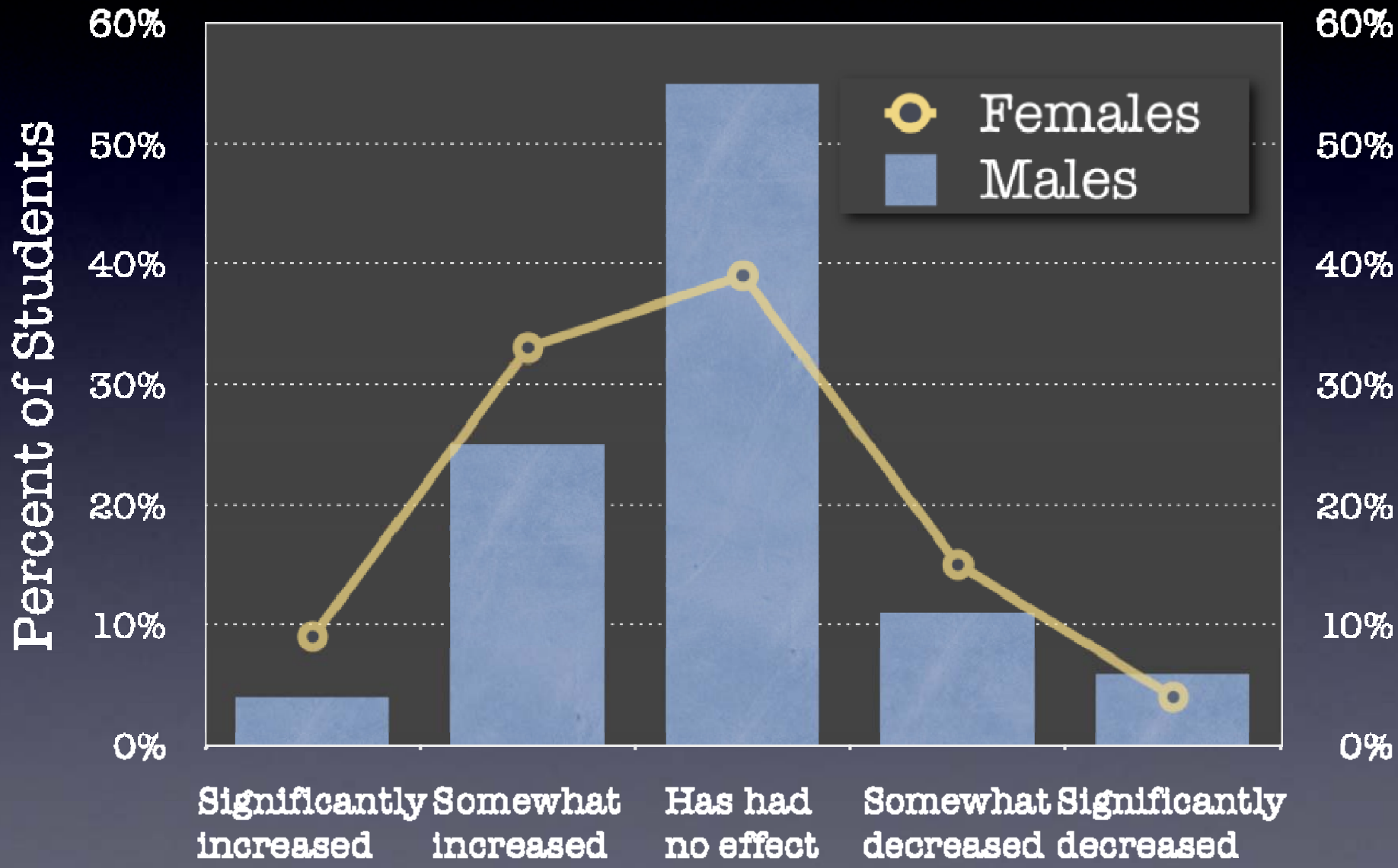
"In classes where you do not use a laptop, what percentage of time do you estimate you are engaged in tasks not pertaining to that course?"



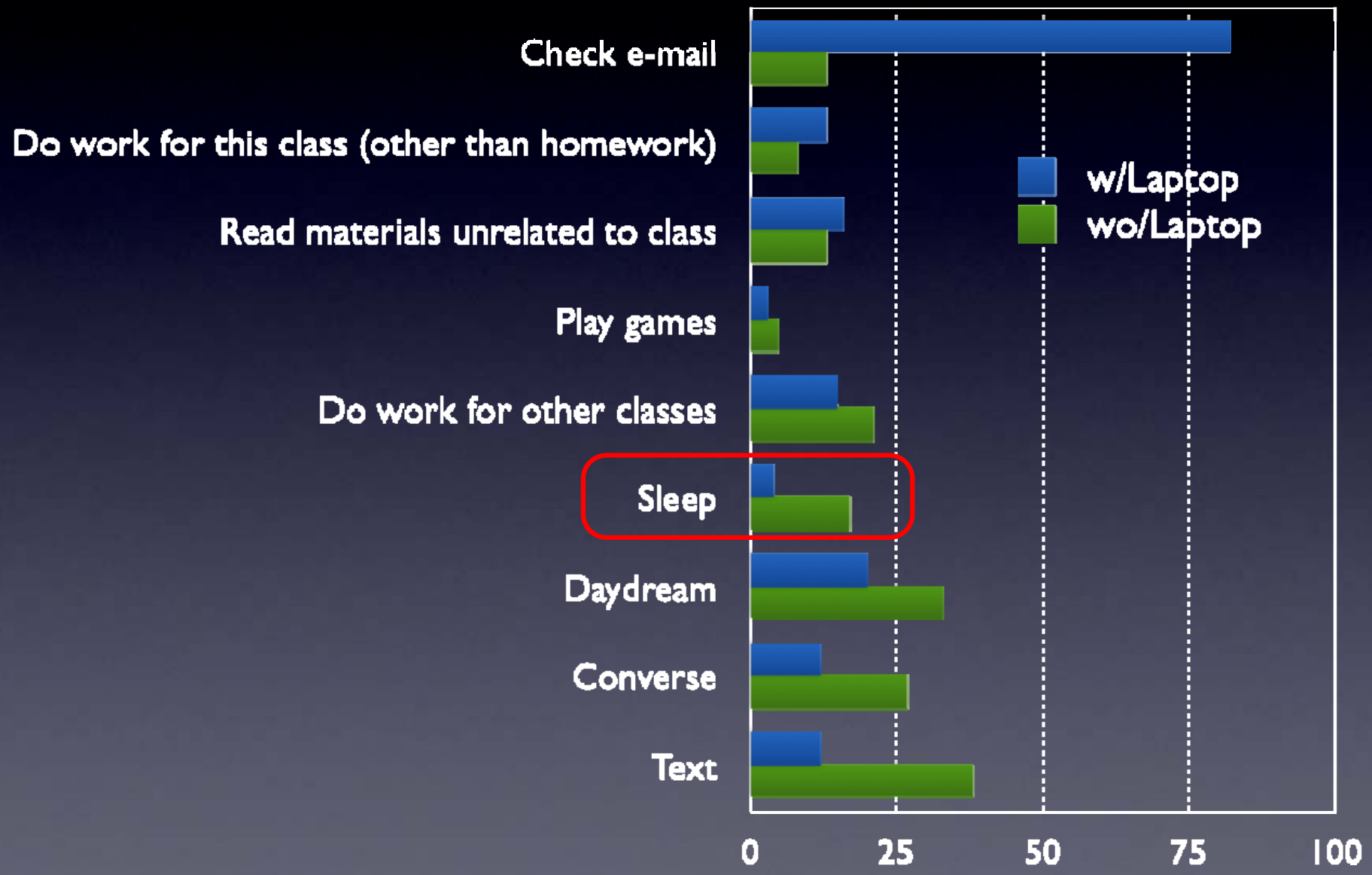
“How do you feel that your use of laptops in this class has changed the time you spend on tasks unrelated to the lecture?” {Fall, 2008}



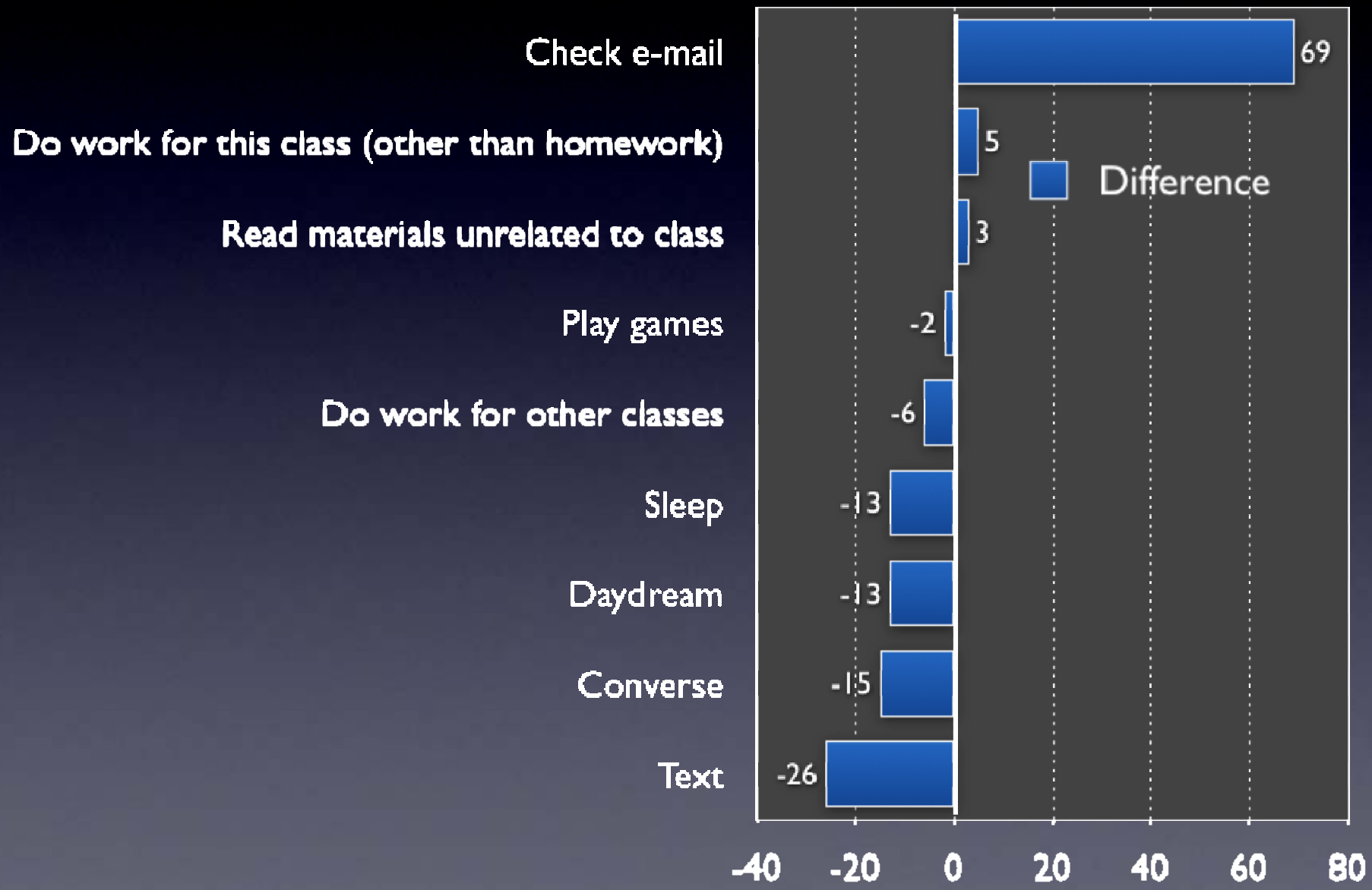
"How do you feel that your use of laptops in this class has changed the time you spend on tasks unrelated to the lecture?" {Winter, 2009}



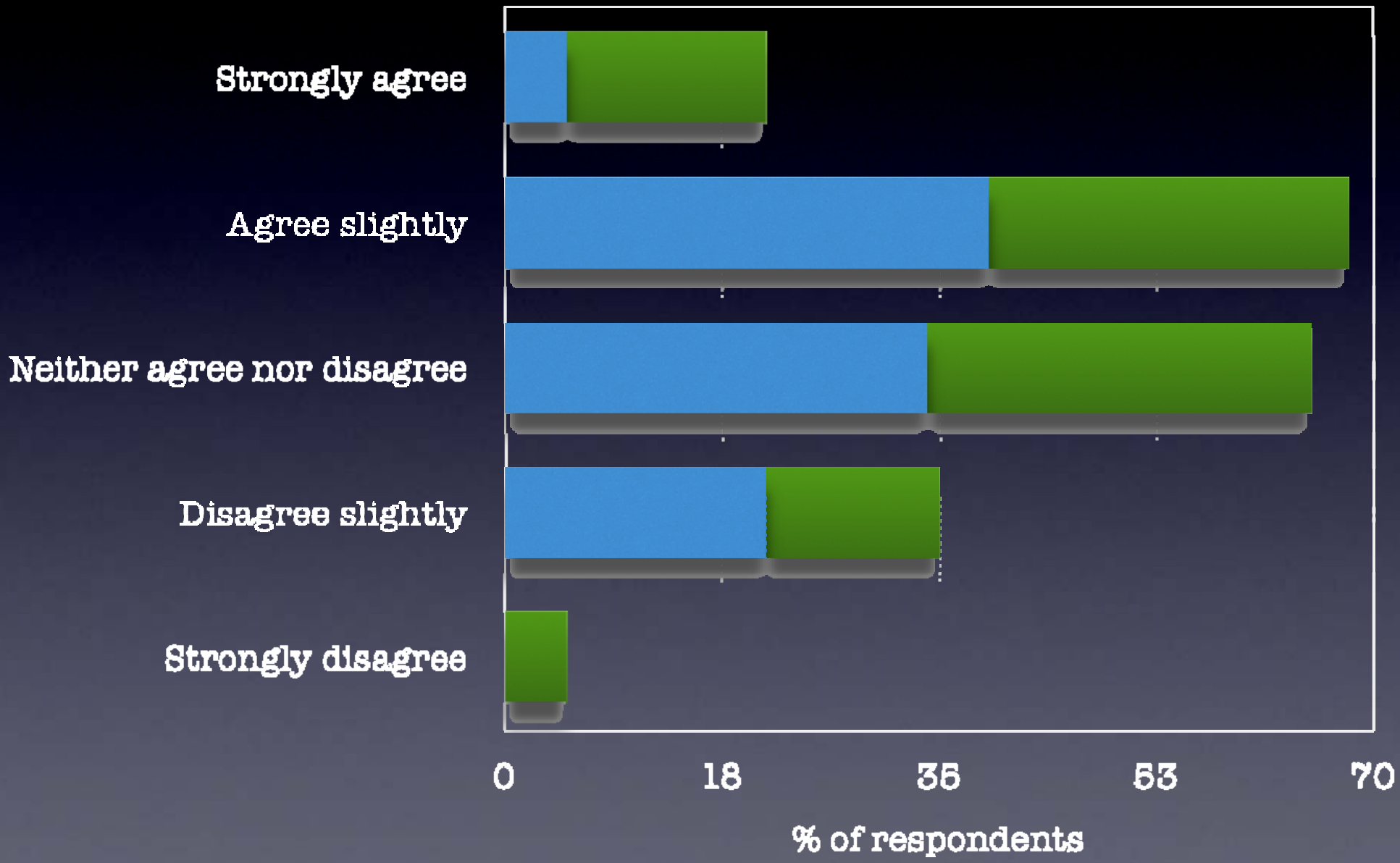
What's Changed?



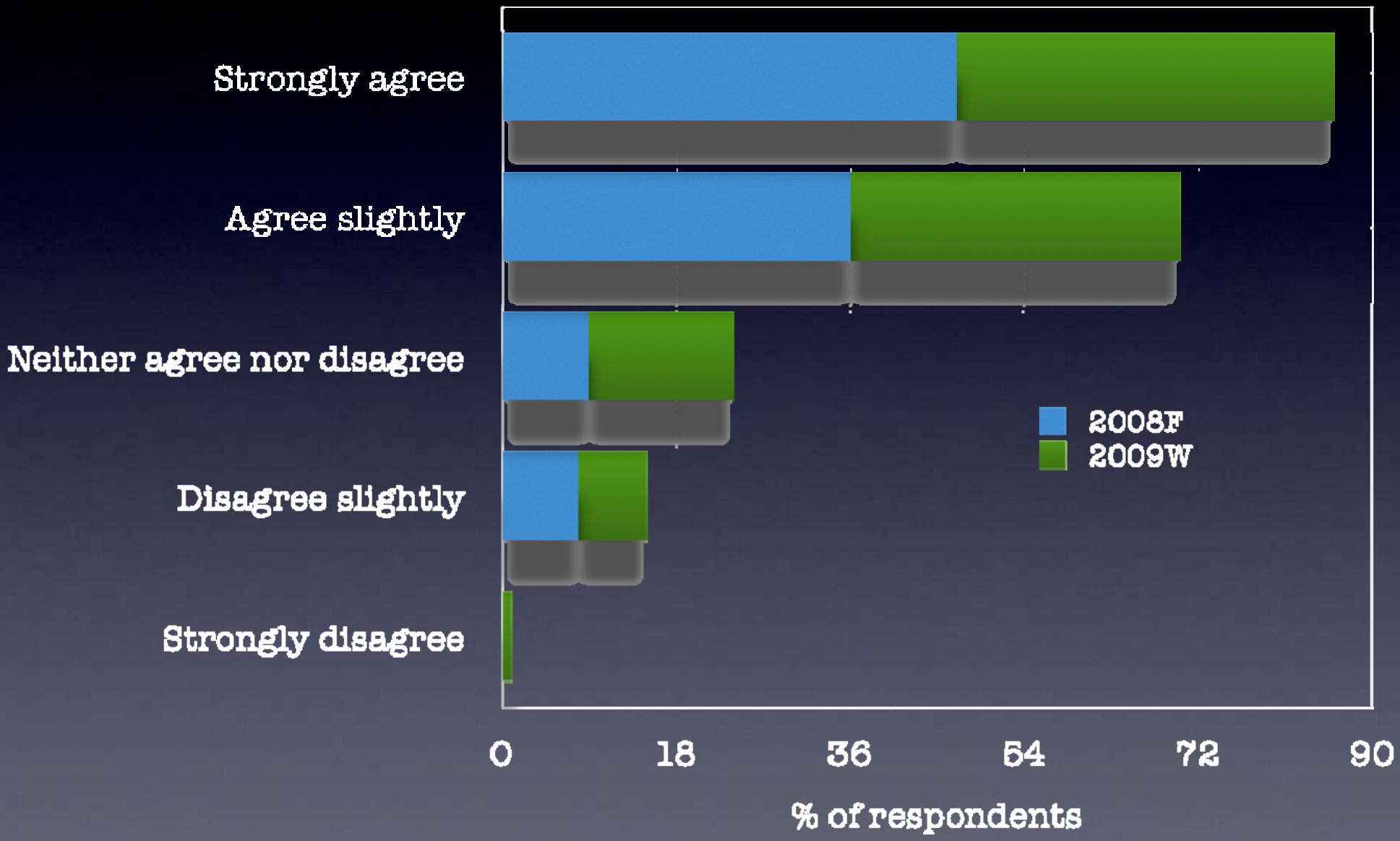
What's Changed?



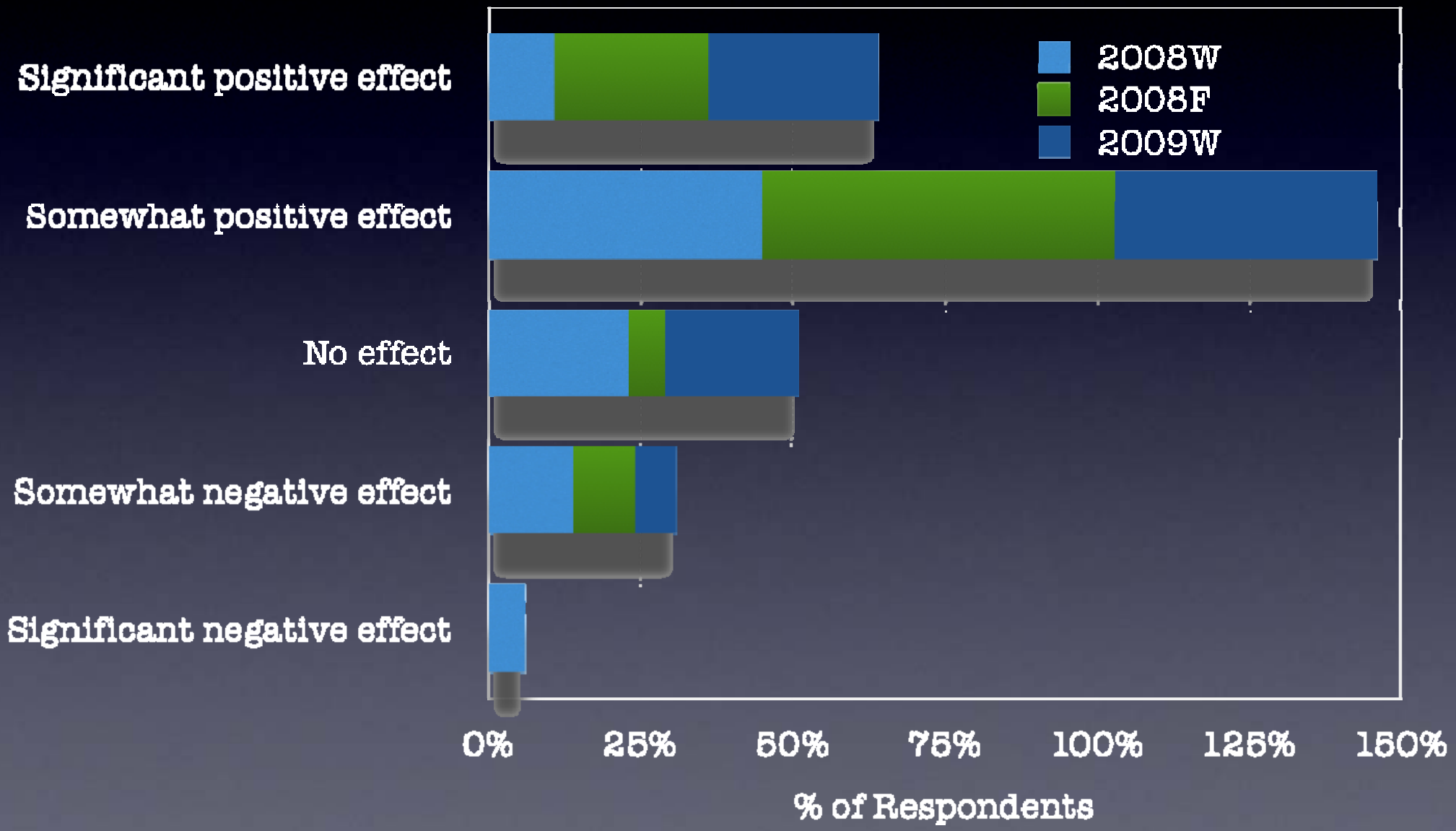
“My attentiveness in this class has increased due to laptop use”



“In this class laptops help me to be engaged during lecture”



“Do you feel that the use of your laptop in class has affected your learning?”



Summary

Laptops are a source of distraction:

1. Students admit that the presence of laptops in class adds distraction.
2. Distraction appears to affect women more than men.

Regardless, laptops are viewed as positive

1. Students feel laptops help then be more engaged .
2. Students feel laptops help then be more attentive.
3. Students feel laptops have a positive affect on their learning.

My Agenda

- Demonstrate what LectureTools does
- Show you what's been learned
- Guide you to set up your own course
- Where's this going?

My Agenda

- Demonstrate what LectureTools does
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LectureBook

USER: Perry Samson **SCHOOL:** University of Michigan-Ann Arbor **Logout**
PROFILE: Change **COURSE:** Introduction to Statistics & Data Analysis

My Courses | Lecture Selection | This Lecture | Links | Instructions

Statistics syllabus
exams Gunderson
Handouts

Lecture Slides for: **Tuesday, May 5, 2009**

Welcome to Stats 350 Winter 2009

Brenda Gunderson bkg@umich.edu

- **Please Pick up a Syllabus Handout**
- **Also up front: a few copies of lecture notes for today**
  (if you have your lecture notes coursepack – you don't need this!)
- We will turn on clickers **LATER** in class.
- **Today:**
  - Go through syllabus & course basics
  - Intro to Chapter 2: Turning Data into Information
  - Try some Clicker Questions along the way!
- **For next class: Read Chapters 1 and 2**

"Statistical thinking will one day be as necessary for efficient citizenship as the ability to read and write."
– H. G. Wells

Draw on this ↑ slide

My Family ...

My Notes

B I U | Courier New | 4 (14pt) | A | ab

This is a note.

Statistics

...**the most important science in the whole world**: for upon it depends the practical application of every other science and of every art: the one science essential to all political and social administration, all education, all organization based on experience, for it only gives results of our experience." zzczxc dfgdg Zxx

Ask a question

B I U | Font family | Font size | A | ab

Slide Specific Resources

Statistics

① ② ③ ④ ⑤ Understanding

Your Answer to Question #2:

The radio waves produced by lightning are called:

- (•) sferics
- ( ) St. Elmo's fire
- ( ) thunder
- ( ) sonic boom
- ( ) ball lightning

Your answer is **CORRECT**!

Please take a moment to affirm your answer by reading the highlighted section from the text.

Confidence Distribution for This Question from Your Course

1	0%	
2	0%	
3	4%	
4	21%	
5	75%	

AOSS 102 responses = 303

Still confused? — Search clarifications others have requested.

Next Question

Need clarification? — Search clarifications other have requested about this question.

Lightening Detection and Suppression

For many years, **lightning** strokes were detected primarily by visual observation. Today, **cloud**-to-ground **lightning** is located by means of an instrument called a **lightning** direction-finder, which works by detecting the radio waves produced by **lightning**. A web of these magnetic devices is a valuable tool in pinpointing **lightning** strokes throughout the United States, Canada, and Alaska. **Lightning** detection devices allow scientists to examine in detail the **lightning** activity inside a storm as it intensifies and moves (see Fig. 10.24). This gives forecasters a better idea where intense **lightning** strokes might be expected. In addition, when this information is correlated with satellite images, a more complete and precise structure of a **thunder**storm is obtained.

Each year, approximately 10,000 fires are started by **lightning** in the United States alone and around $50 million worth of timber is destroyed. For this reason, tests have been conducted to see whether the number of **cloud**-to-ground **lightning** discharges can be reduced. One technique that has shown some success in suppressing **lightning** involves seeding a **cumulonimbus cloud** with hair-thin pieces of aluminum about 10 cm long. The idea is that these pieces of metal will produce many tiny sparks, or corona discharges, and prevent the electrical potential in the **cloud** from building to a point where **lightning** occurs. While the results of this experiment are inconclusive, many forestry specialists point out that nature itself may use a similar mechanism to prevent excessive **lightning** damage. The long, pointed needles of pine trees may

HIGHLIGHTED PARAGRAPH

MARGIN NOTES

Click here to attach a margin note to the highlighted paragraph or click another paragraph to highlight.

List My Margin Notes for this Chapter

VISUALS

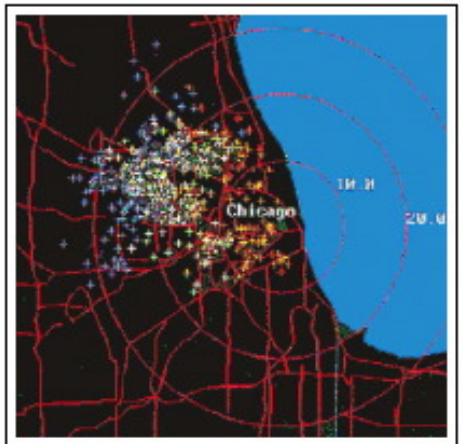

Fig. 10.24 view

KEYWORDS

Cloud — A visible aggregate of tiny water droplets and/or ice crystals in the atmosphere above the earth's surface.

EXTREME WEATHER AND CLIMATE

C. DONALD AHRENS PERRY SAMSON

Next Steps

Try it!
http://www.lecturetools.org

Write me...
samson@umich.edu