

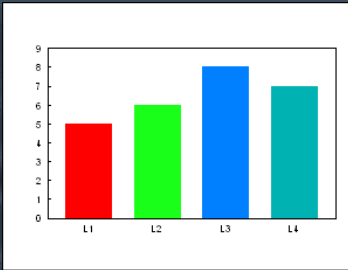
Using Hand-held “Clickers” in the Classroom

A technology to enhance student
engagement and learning

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Fort Wayne Teaching Conference
February 25, 2011



Using clickers



Student Response System

<http://www.einstruction.com/>

Equipment

- ✓ Software
 - Classroom Performance System™ (CPS)
 - Shell for running PowerPoint OR
 - Runs concurrent with PowerPoint
- ✓ Receiver
 - Radio frequency – USB plug
- ✓ Clickers
 - CPS Pulse™ (Gen 3)
 - 150' range
 - All types of closed-ended questions
 - 140 character text entry

Using clickers

Preliminaries

- ❖ Instructor creates CPS course online
- ❖ Students purchase clickers at the Bookstore
 - Typically \leq \$30.
 - Each student must have their own
 - Can be used in other classes (registered uniquely for each class)
 - Can be re-sold at end of term
- ❖ Each student registers their clicker
 - At elnstruction website OR
 - Through link on Blackboard
 - May be a fee, depending on institutional contract
- ❖ When they register, students are assigned a pad number
 - In the order in which they register
 - Unique for each class

Using clickers

- ✓ Taking attendance
- ✓ Just-In-Time Teaching
- ✓ Critical thinking
- ✓ Classroom Polling – comparative surveys
- ✓ Classroom Polling – confidential surveys
- ✓ Student-generated surveys
- ✓ Other uses
 - Making learning fun
 - Exams, quizzes

Using clickers

Taking attendance

- ❖ Procedure
- ❖ Database
- ❖ Reports
- ❖ Gradebook

Using clickers

Just-In-Time Teaching

❖ Principle:

- ✓ Tailor the teaching strategy to the needs of *these* students at *this* moment.

❖ Strategy:

- ✓ Discover what students know about a subject at the moment of teaching it
- ✓ Address misunderstandings, gaps in knowledge

❖ Examples

Human Evolution

Archaeological evidence indicates that the earliest humans lived

- a. in the river valleys of Europe.
- b. on the savannahs of East Africa.
- c. along the Indian Ocean coast.
- d. in the rainforests of Indonesia.

Stages of Primary Socialization

In early infancy, what is the *most important factor* in the infant's intellectual and social development?

- a. The quality of the toys the baby plays with
- b. The caregiver's responsiveness to the baby's cues
- c. The infant's genetic makeup
- d. The quality of the baby's diet
- e. The educational level of the primary caregivers

Political Ideologies

At this point in the course, how well would you say you can articulate your own political beliefs?

1. Very well
2. Somewhat
3. A little
4. Not at all

Using clickers

Critical thinking

- ❖ Drawing conclusions
- ❖ Hypothesis generation

Primary Socialization

Cases of partially isolated children like Isabelle indicate

- a. the inability of children to recover from deprivation in their early years.
- b. the importance of interaction in normal human development.
- c. the existence of a relatively fixed human nature.
- d. that isolation inevitably causes mental retardation.

Social Groups

What happened at Bennington College, given the difference in views between the faculty and the students?

1. The students became more liberal.
2. Faced with so many conservative students, the faculty became more conservative.
3. Neither group changed their views.

Sociology & Biology / Research Methods

In Schachter and Singer's study of the effects of "suproxin," which group of subjects became the *most emotional* (happy or angry)?

- a. Informed 4
- b. Misinformed 1
- c. Uninformed 2
- d. Control 3

Gender stereotypes



How many of these infants are boys?

Components of culture

What is this object?



- a. A 3rd-generation electronic ATM
- b. An information kiosk in the mall
- c. A retinal scan security system
- d. The controls for a toilet

Using clickers

Classroom polling – comparison surveys

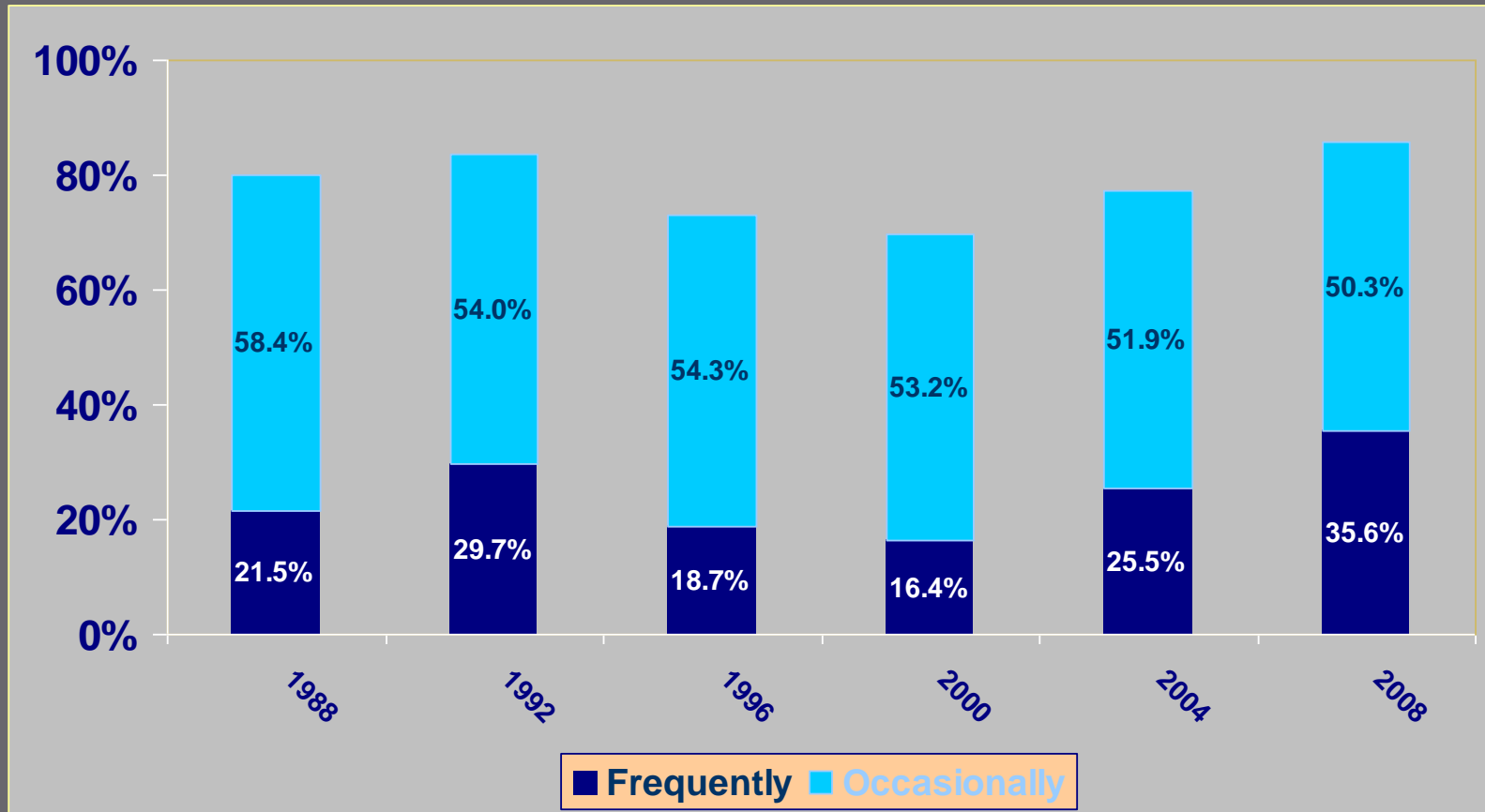
- ❖ Compare student results to national polls
- ❖ Hypothesize differences and similarities

In the past year, how often did you discuss politics?

1. Frequently
2. Occasionally
3. Rarely
4. Never

In the past year, how often did you discuss politics?

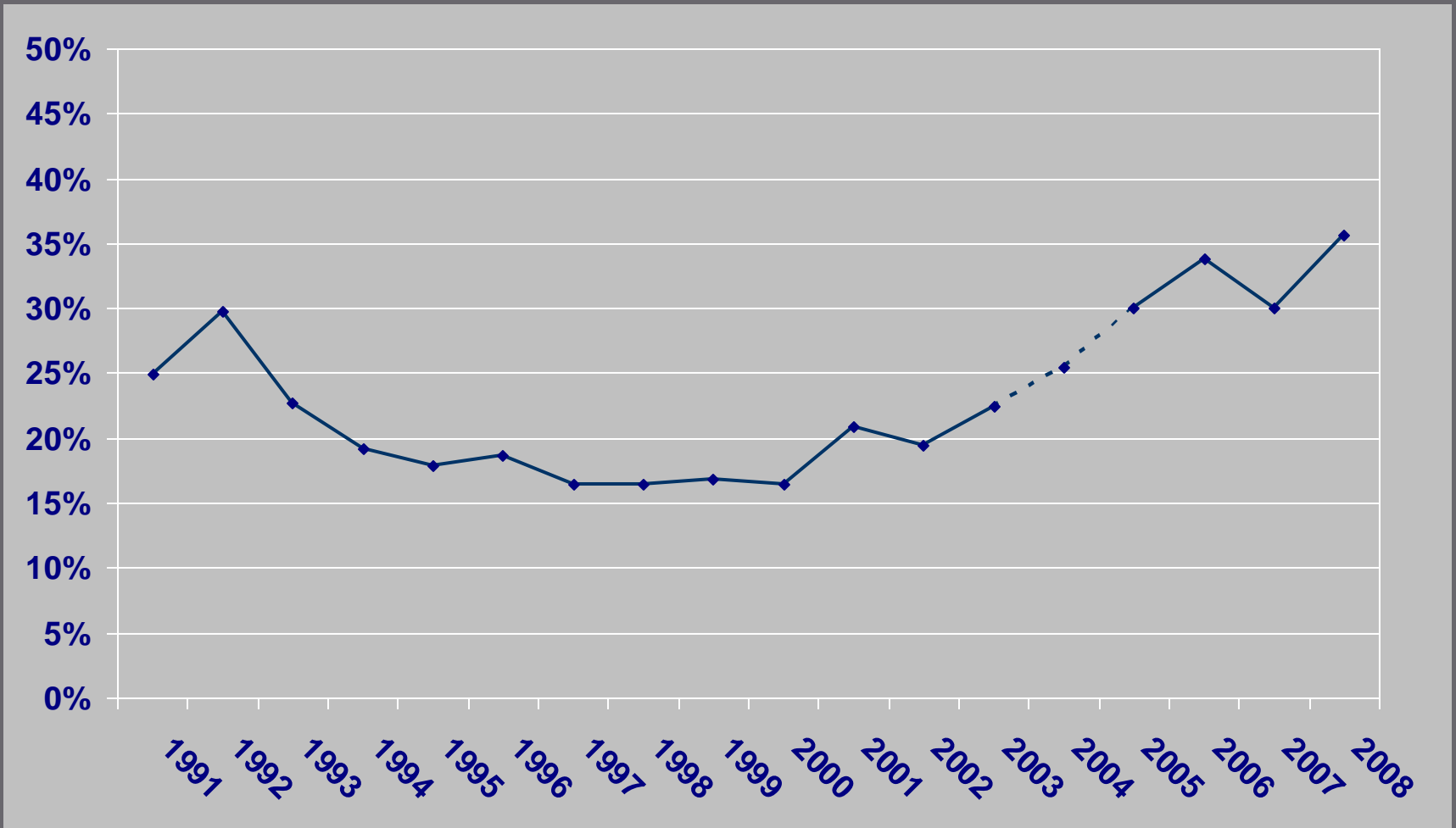
Cumulative percent responding *Frequently* or *Occasionally*, election years



Source: UCLA Higher Education Research Institute, *College Freshman Survey*
National survey of 340 colleges and universities, 2008
240,580 first-time, full-time students

In the past year, how often did you discuss politics?

percent responding *Frequently*, selected years



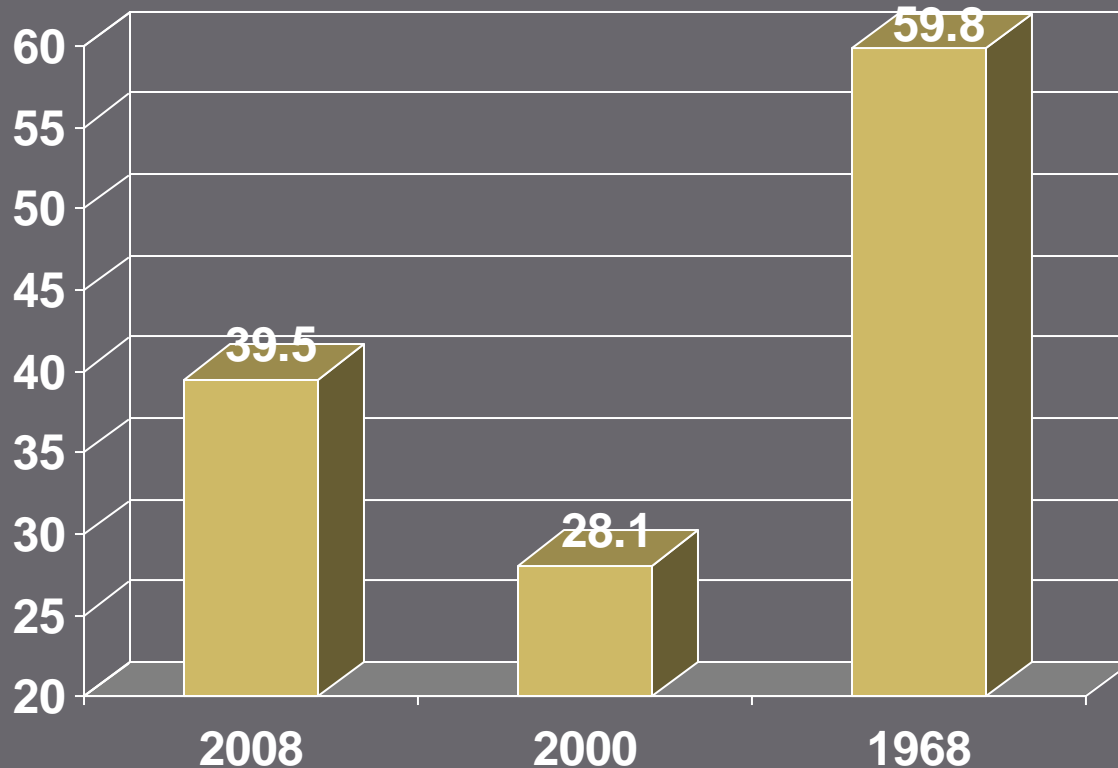
2008 is highest % recorded; surpasses previous high in 1968

How important is it to you to keep up to date with political affairs?

1. Essential
2. Very important
3. Somewhat important
4. Not important

How important is it to you to keep up to date with political affairs?

Cumulative percent responding *Essential* or *Very Important*



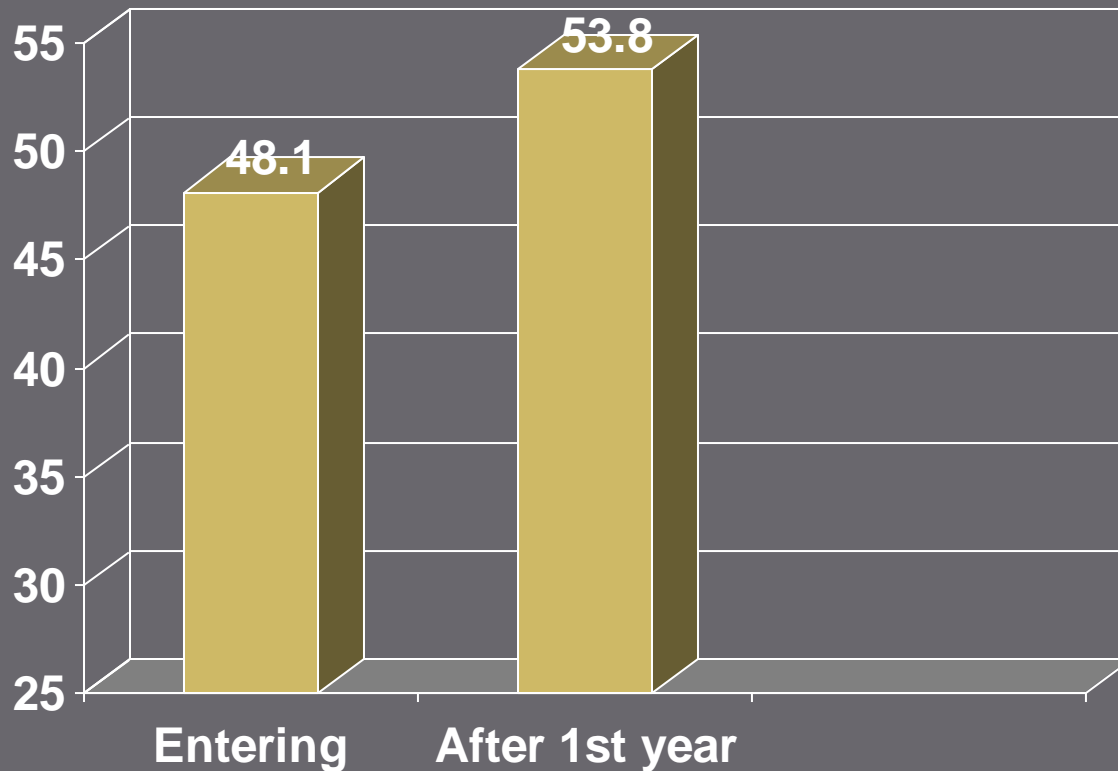
Source: UCLA Higher Education Research Institute, *College Freshman Survey*
National survey of 340 colleges and universities, 2008
240,580 first-time, full-time students

How important is it to you to develop a meaningful philosophy of life?

1. Essential
2. Very important
3. Somewhat important
4. Not important

How important is it to you to develop a meaningful philosophy of life?

Cumulative percent responding *Essential* or *Very Important*

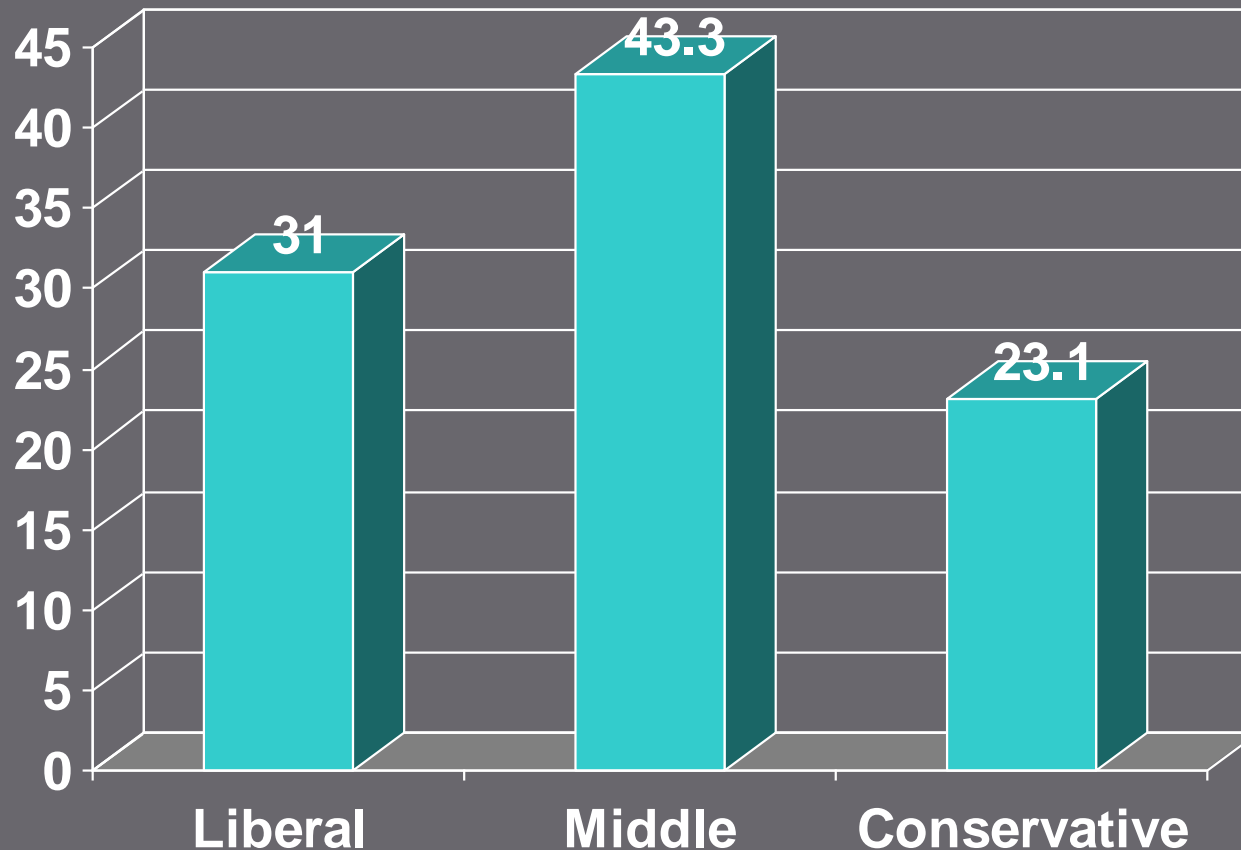


Source: UCLA Higher Education Research Institute, *Your First College Year*
national survey of 114 institutions, 2007
31,500 students responded

At this time, how would you describe your political beliefs?

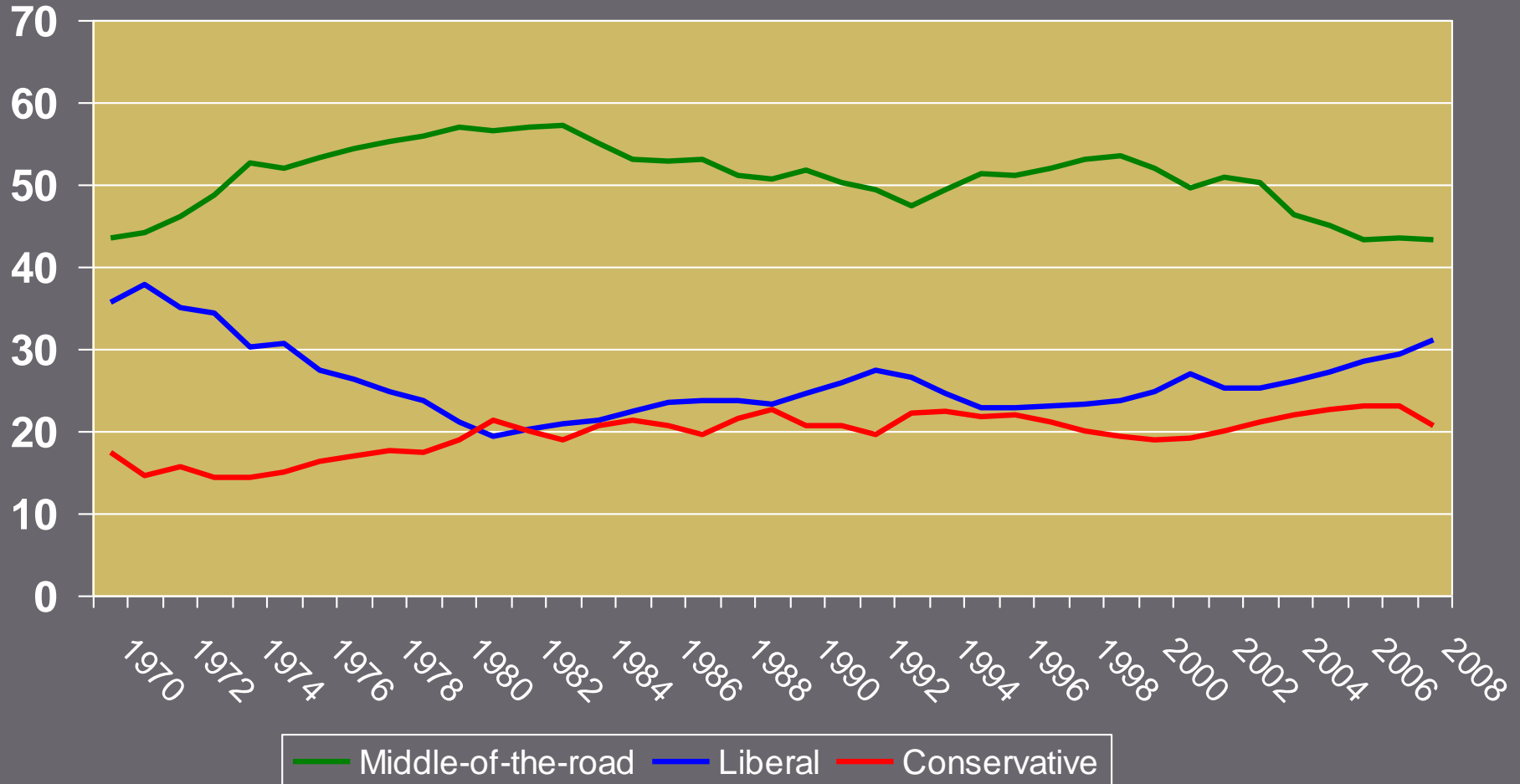
1. Liberal
2. Middle of the road
3. Conservative

At this time, how would you describe your political beliefs?



Source: UCLA Higher Education Research Institute, *College Freshman Survey*
National survey of 340 colleges and universities, 2008
240,580 first-time, full-time students

Political Identification of College Freshman over Time



Source: UCLA Higher Education Research Institute, *College Freshman Survey*
National survey of 340 colleges and universities, 2008
240,580 first-time, full-time students

Using clickers

Classroom polling – confidential surveys

- ❖ Anonymity allows for asking questions otherwise too sensitive
- ❖ Students discover otherwise hidden characteristics of the group
- ❖ Every student's “voice” is heard – but anonymously

Based on your family income and lifestyle, what social class would you say that you are in?

1. Upper class
2. Upper middle class
3. Lower middle class
4. Working class
5. Lower class

Primary Socialization

Under which model of primary socialization were you raised?

- a. Authoritarian
- b. Permissive
- c. Participatory

Primary Socialization

In your opinion, is spanking necessary to instill a respect for social norms and a conscience in a child?

- a. Yes
- b. No

Which man is a terrorist?



1



2



3



4



5



6

Which man is a terrorist?



Jose Ramos-Horta
Nobel Peace Prize 1996



Naquib Mahfouz
Nobel Lit. Prize 1988



V.S. Naipaul
Nobel Lit. Prize 2001



Saif al-Adel
Member Al-Qaeda



Chandrasekhara Venkata Raman
Nobel Physics Prize 1930



Oscar Arias Sanchez
Nobel Peace Prize 1987

Which man is a serial killer?



1



2



3



4



5



6

Which man is a serial killer?



Gao Xingjian
Nobel Lit. Prize 2000



Gary Ridgway
Killed at least 49 (71)



Sir Arthur Lewis
Nobel Econ. Prize 1979



Wole Soyinka
Nobel Lit. Prize 1986



Czeslaw Milosz
Nobel Lit. Prize 1980



Kim Dae-Jung
Nobel Peace Prize 2000

Social Research Methods - validity

In the past month, how often have you had sex?

- a. 0 times
- b. 1-2 times
- c. 3-12 times
- d. 13+ times

Did you answer this question truthfully?

- a. Yes, I answered truthfully.
- b. No, I lied.

Using clickers

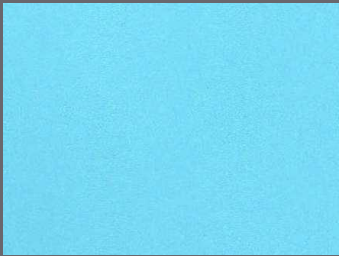
Student-generated surveys

- ❖ Personal
 - Drug and alcohol use
 - Dating and sex
 - Stress
 - Eating disorders
- ❖ College
 - 1st generation?
 - Support from family? Friends?
- ❖ Current events
 - opinions

Using clickers

Other uses: Making learning fun

What color is *Hidden Lagoon*?



1

Cool Aqua



2

Lagoon Breeze



3

Cold Water



4

Hidden Lagoon

What color is *Deep Cowslip*?



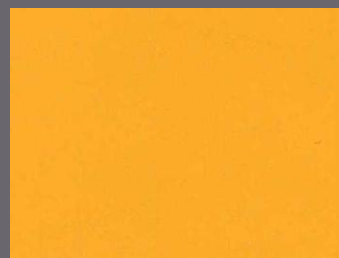
1

Dark Green



2

Firewood



3

Deep Cowslip



4

Sand

What color is *Summer Pudding*?



1

Amber



2

Rustica



3

Winter Evening



4

Summer Pudding

Using clickers

Other uses: Exams and quizzes

“If market forces were free to move without restriction, the wealth of the nation would increase – at least in the aggregate, if not for all individuals equally.”

Someone from which perspective said this?

1. Organic Conservative
2. Individualist Conservative
3. Reform Liberal
4. Socialist / Radical

While visiting Japan, Betsy, a Texas cattle rancher, decides that the Japanese custom of eating raw fish is disgusting. This is an example of

- a. ethnocentrism.
- b. ethnomethodology.
- c. cultural relativity.
- d. culture shock.

Sam grew up and went to high school in a small town in the rural Midwest. Enrolling in a major state university located in a large urban area, Sam has trouble at first adjusting to the social customs and student lifestyles he encounters. Sam is experiencing

- a. ethnocentrism.
- b. culture shock.
- c. cultural relativism.
- d. a cultural universal.

Which of the following is a *belief*?

- a. People should drive on the right-hand side of the road.
- b. For every action there is an equal and opposite reaction.
- c. There is life after death.
- d. Authoritarian socialization inhibits creativity.

Using clickers

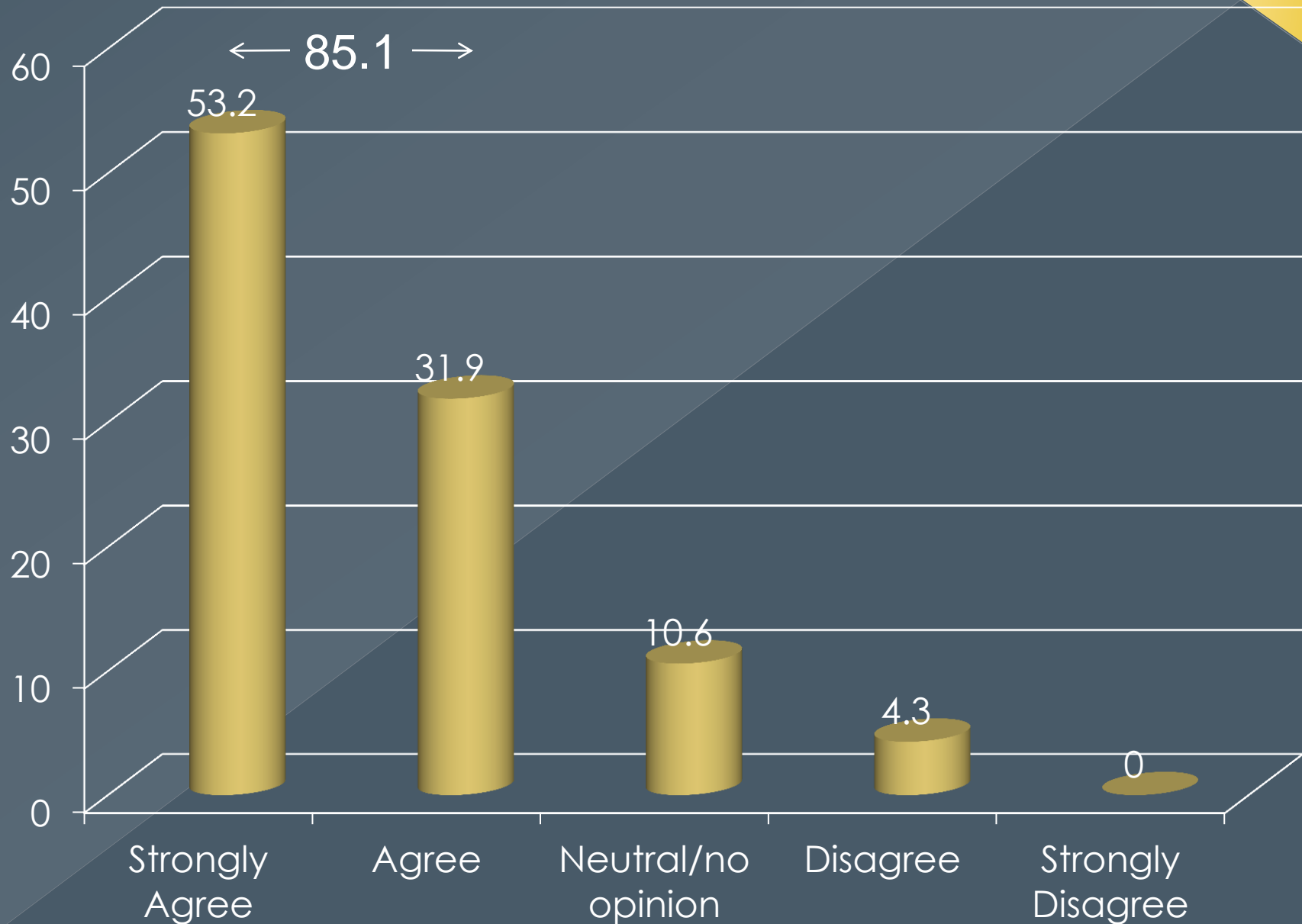
Issues

- ❖ “I forgot my clicker.”
- ❖ Facetious answers

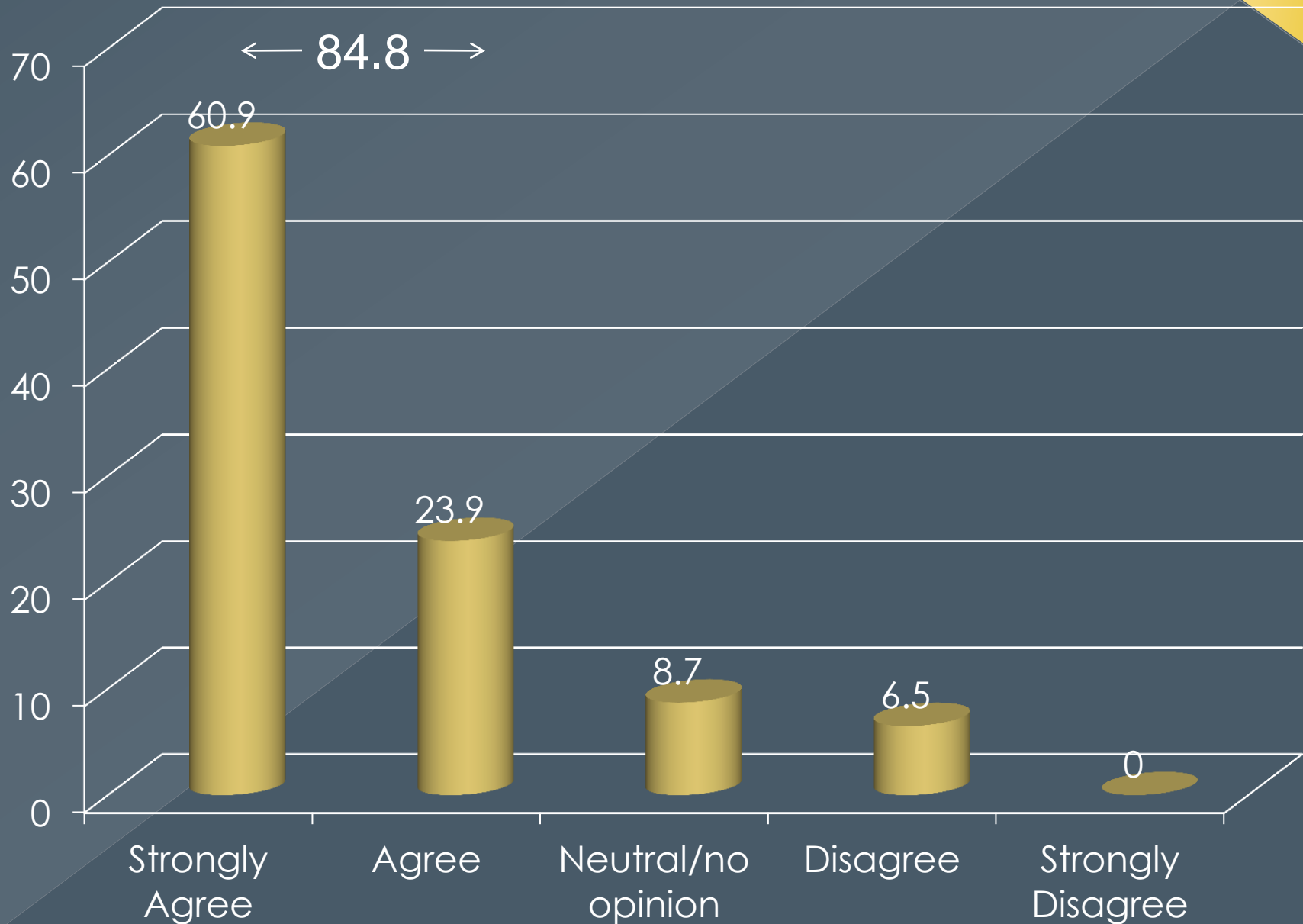
Student evaluation of clicker use

End of term survey

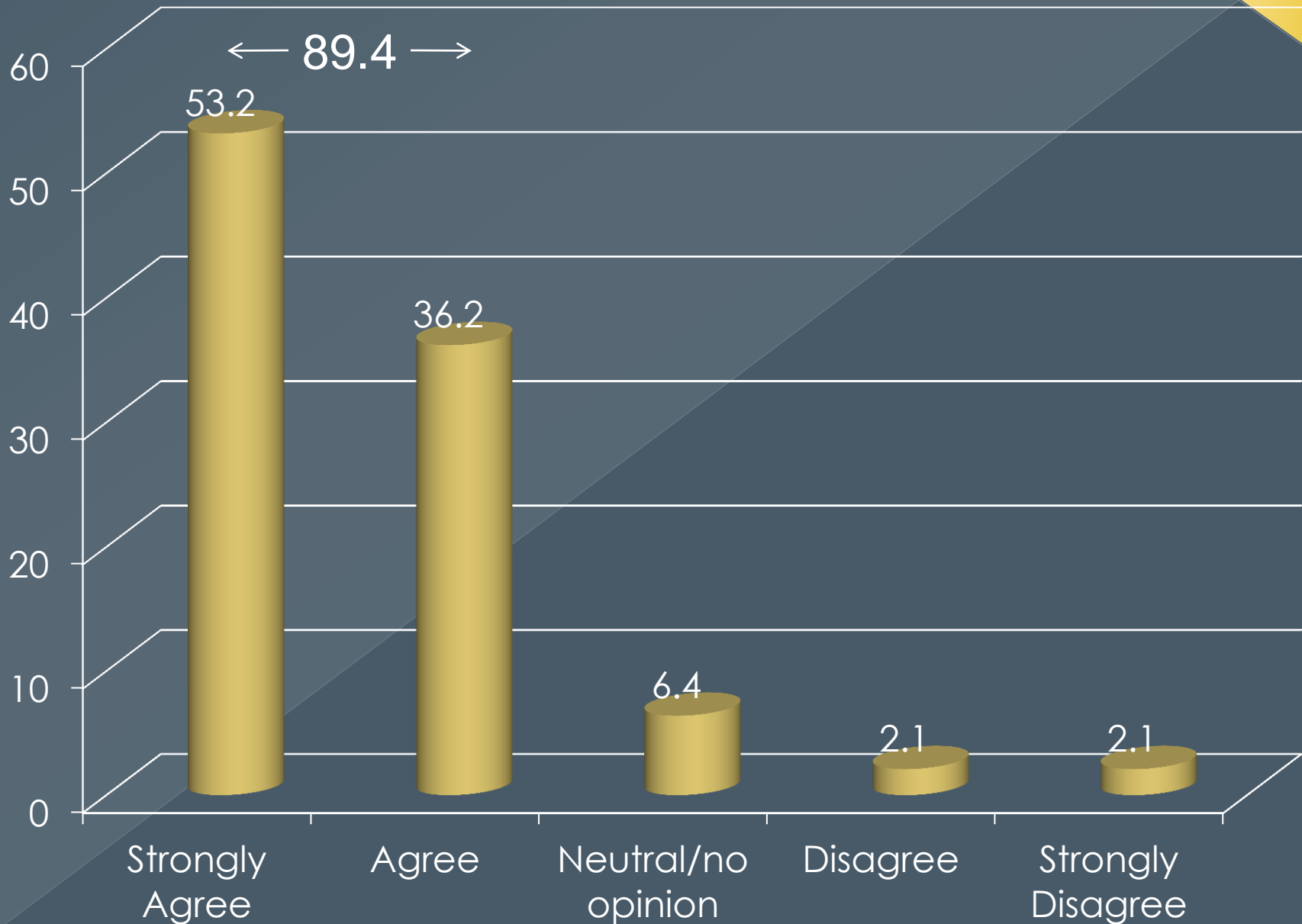
I enjoyed using the clickers to take attendance.
(%)



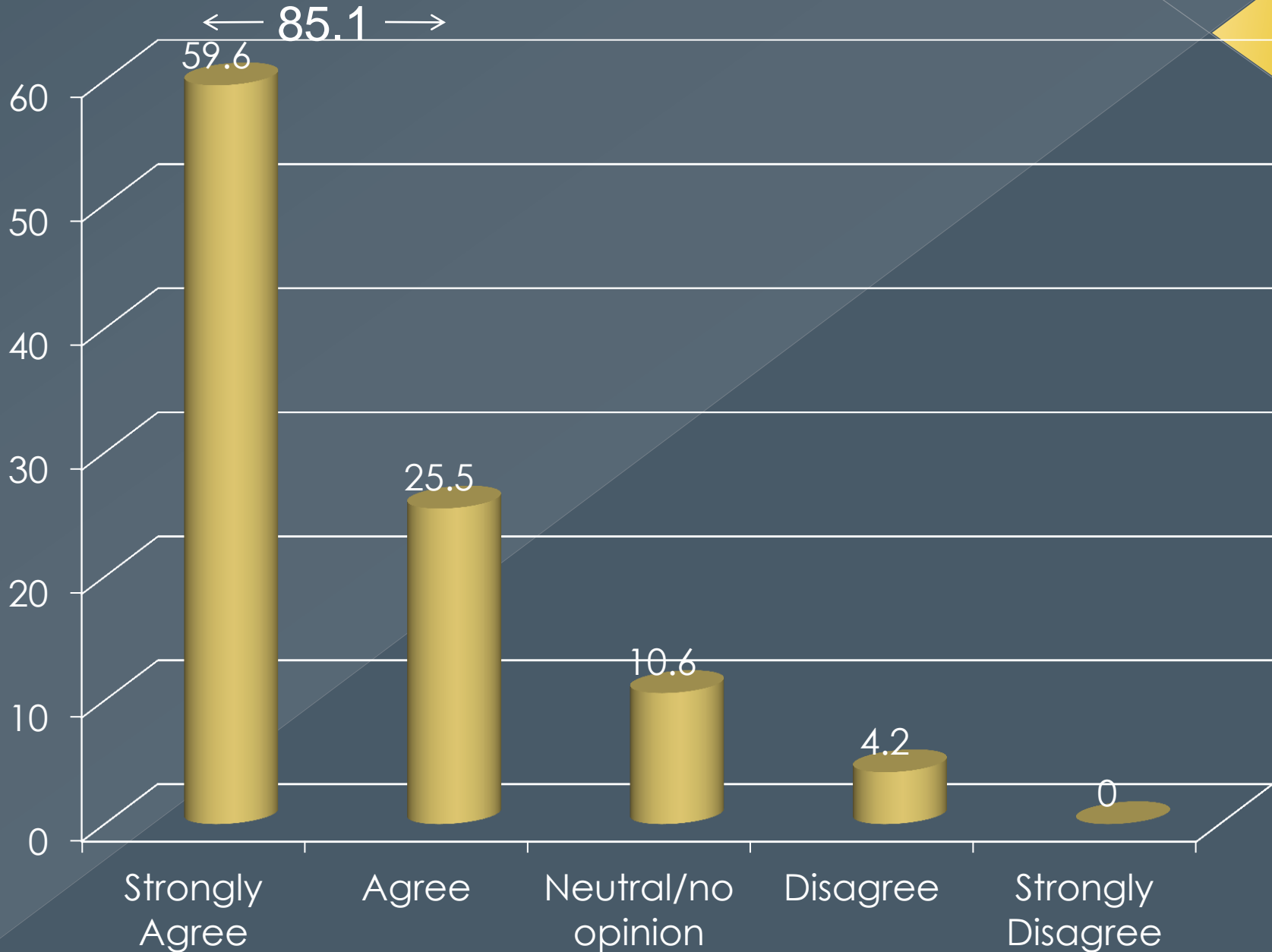
I thought using the clickers was an efficient way to take attendance in this class. (%)



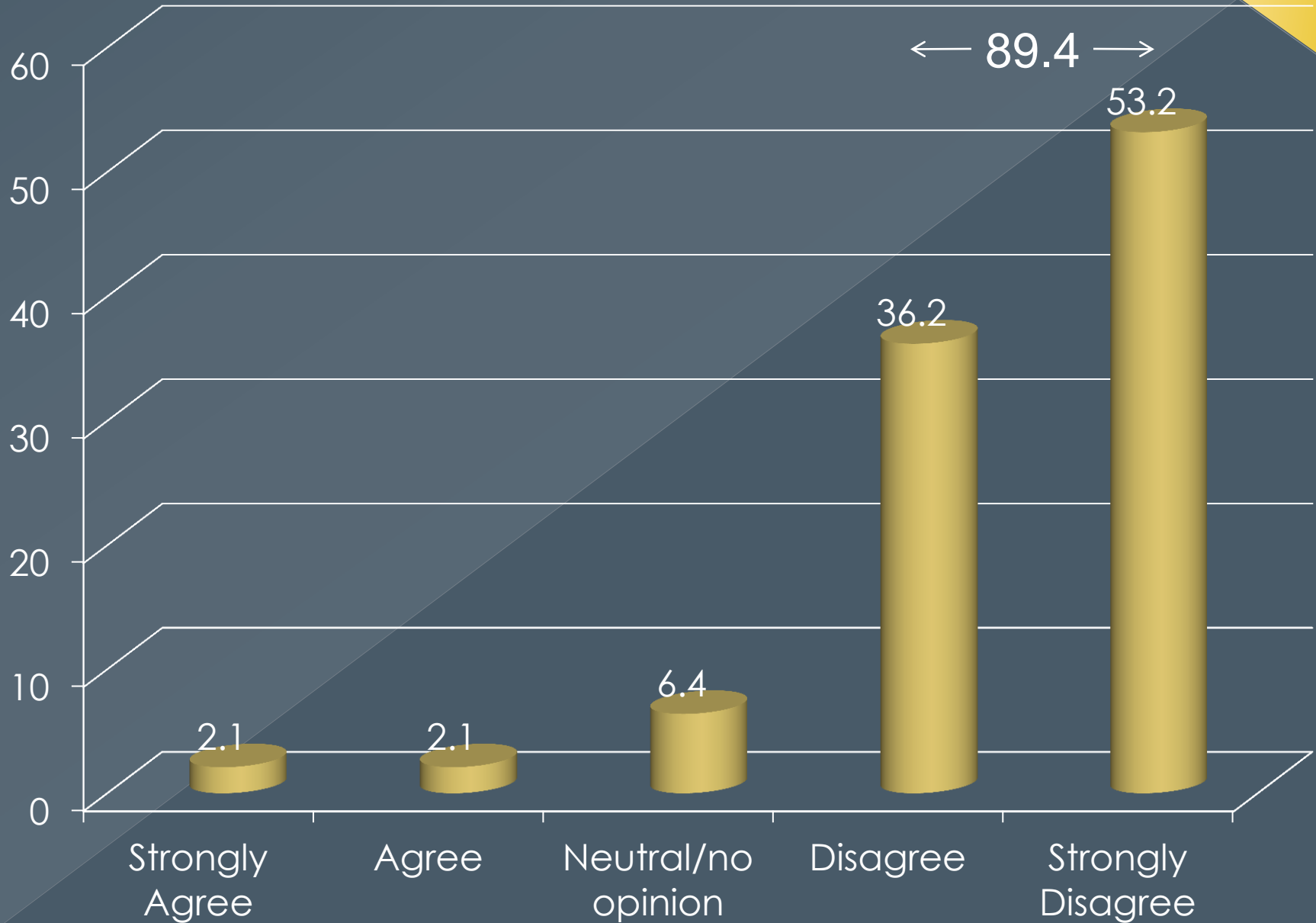
Finding out the results from the clicker surveys increased my interest in the class. (%)



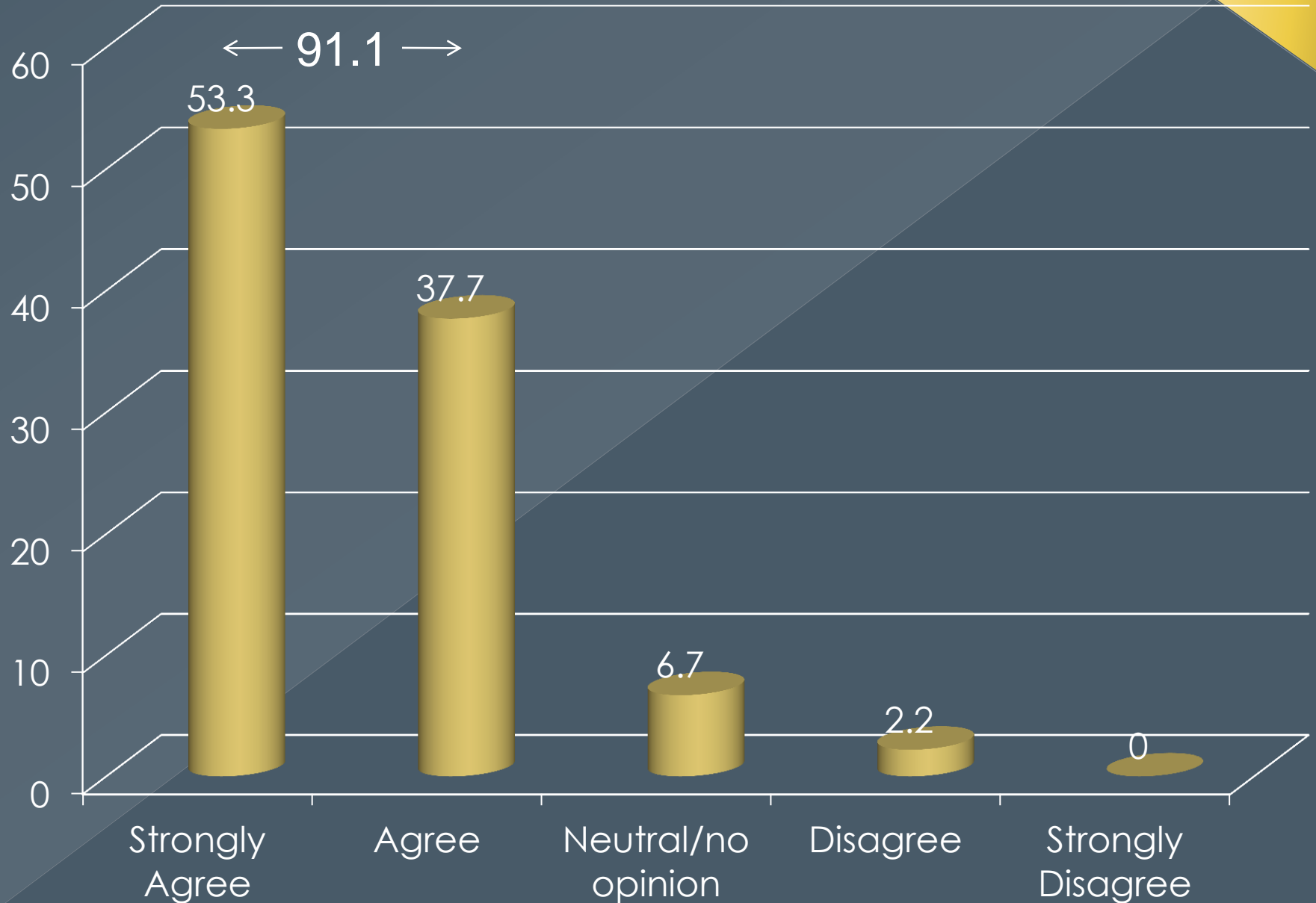
I paid more attention when we used the clickers in class. (%)



Using the clickers in this course was generally a waste of time. (%)



I would recommend using the clickers in this class in the future. (%)



Audience poll

Did you find the information presented about clickers useful?

- a. Very useful
- b. Somewhat useful
- c. Neutral
- d. Not very useful
- e. Not at all useful

Audience poll

Based on today's presentation, how likely is it that you will try to use clickers in the classroom?

- a. Very likely
- b. Somewhat likely
- c. Neutral/don't know
- d. Not very likely
- e. Not at all likely

Using clickers

Questions?

Thank you.