

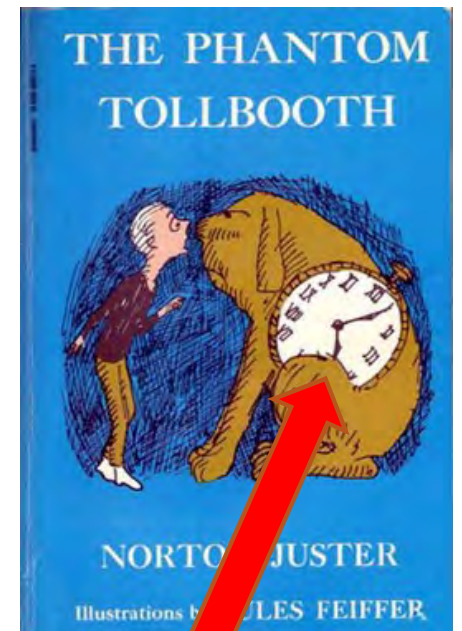
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SCHOLARSHIP OF EXCELLENCE IN TEACHING

1

**Professor Art Grinath's Presentation on
Increased Group Work**

YOU CAN SWIM ALL DAY IN THE
SEA OF KNOWLEDGE AND STILL
COME OUT COMPLETELY DRY.
MOST PEOPLE DO.



2

-Norton Juster, [The Phantom Tollbooth](#)

USING GROUP WORK IN CLASS TO CREATE GREATER STUDENT ENGAGEMENT

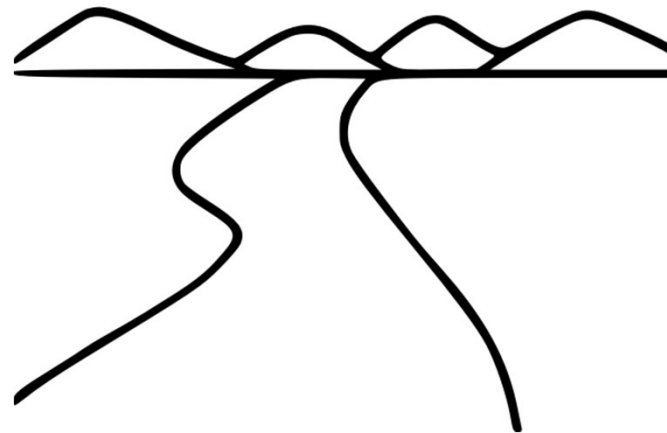
- Get more students involved in discussion
- Have students think about issues before being given “answers”
- Improve problem solving
- Increase student connection to peers



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WHAT LED ME HERE?

- Always had student discussions, but some students left out
- Hard to have longer conversations with a whole class all at once
- Wanted more student interaction outside of class

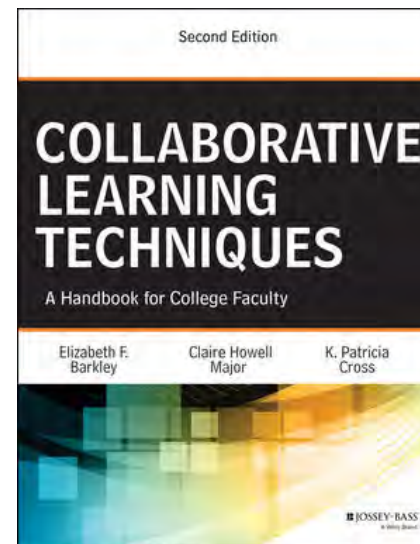


WHY INCREASED GROUP WORK?

- “The workplace is now highly collaborative... Learning that we all have much to teach each other may seem contradictory to our assumptions about school, but it has many benefits. “Bowen and Watson, *Teaching Naked Techniques*, p. 101-102
- “Gradually, but steadily teachers are realizing that a superior form of learning happens when students engage in a dialogue with each other on focused, content-related questions and problems. This means we need to learn how to use small groups effectively.” Fink, *Creating Significant Learning Experiences*, p. 307

THERE ARE WHOLE BOOKS DEDICATED TO GROUP LEARNING

- “...extensive research has generated so many positive reports about the benefits of intentionally designed group learning that we once again find making the case for it almost too easy.” Barkley, Major and Cross, *Collaborative Learning Techniques*, p. 14



MY PROCESS FOR DOING MORE GROUP WORK

- **At the first class, divided up class into ~4 groups**
 - **Did some icebreaking exercises**
- **At least once per class, had students form into their groups**
 - **I had gone through the course, ID-ing promising sections**
 - **“Think about it first” questions**
 - **Problem practice**
 - **Student Generated Questions**
 - **In class experiments**
- **I walked around and interacted with groups**

EXAMPLES OF GROUP ASSIGNMENTS

- Think about it first
 - In a section on International Trade...
 - Groups: List 4 reasons international trade could be a bad thing
- Problem Practice
 - Groups: For each of the following scenarios, show what changes on a D & S graph and what affect that has on equilibrium in the cupcake market
 - Incomes go up
 - The price of donuts falls
 - The price of sugar rises
 - Someone invents an automatic frosting machine



EXAMPLES OF STUDENTS IN GROUPS!

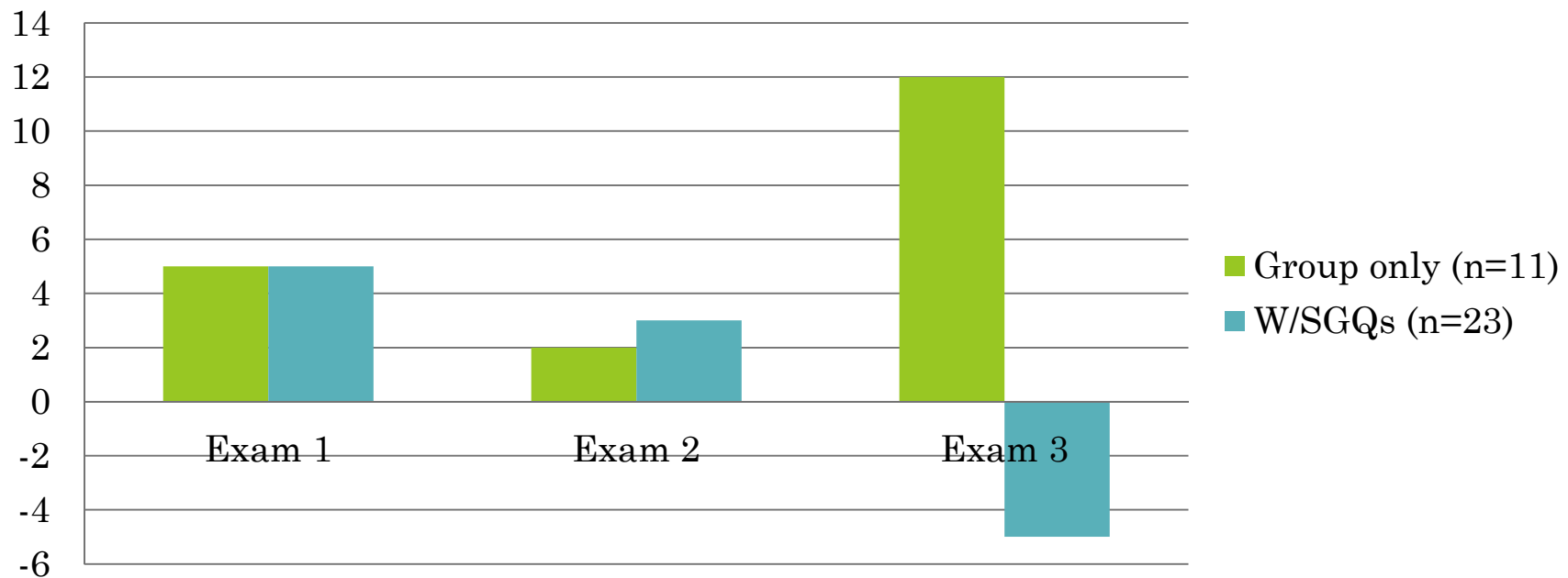


HOW DO GRADES COMPARE (FALL 2019 VS EARLIER)?

- **↑ Group Work:**
2 macro + 2 micro classes, total = 65 students
- **↑ Student Generated Questions:**
1 macro + 1 micro class , total = 43 students
- **3 exams for each course**
 - Exams same as Spring 19 (micro=25, macro=18 students)
 - Similar exams going back to Fall 16 (similar results)

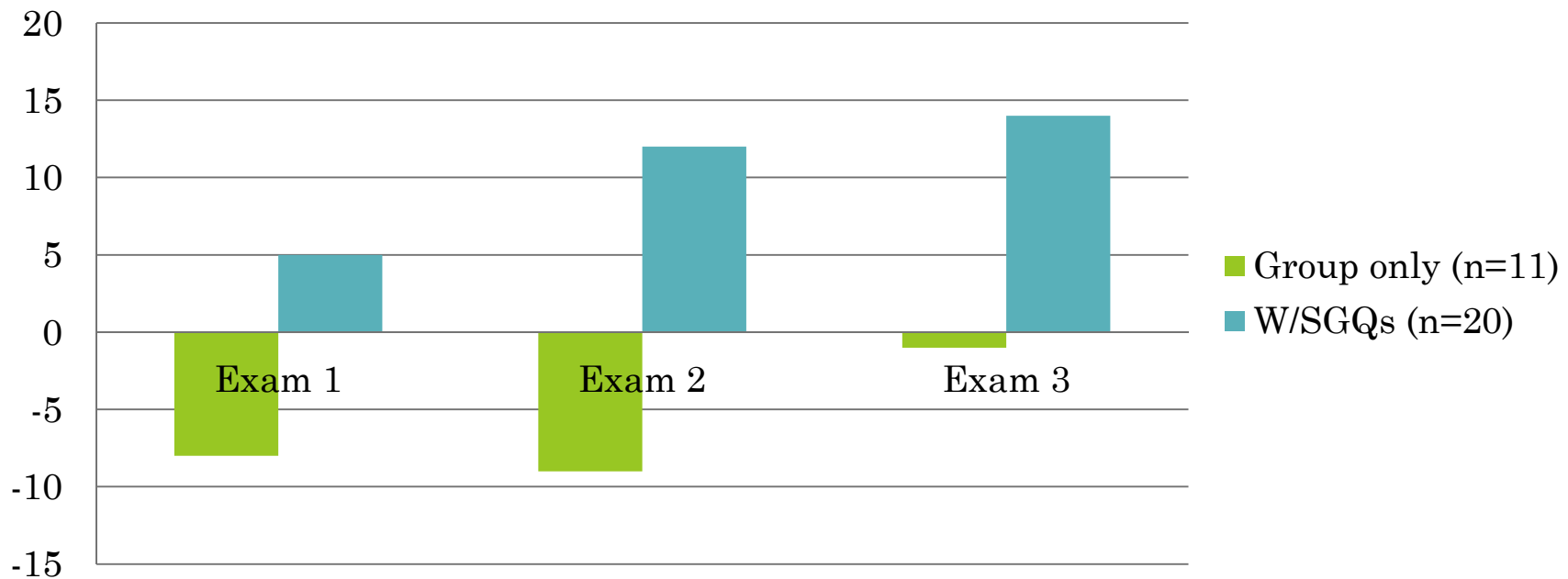
STUDENT-GEN'D QS + GROUP WORK COMPARISON

Micro Grade Change



STUDENT-GEN'D QS + GROUP WORK COMPARISON

Macro Grade Change

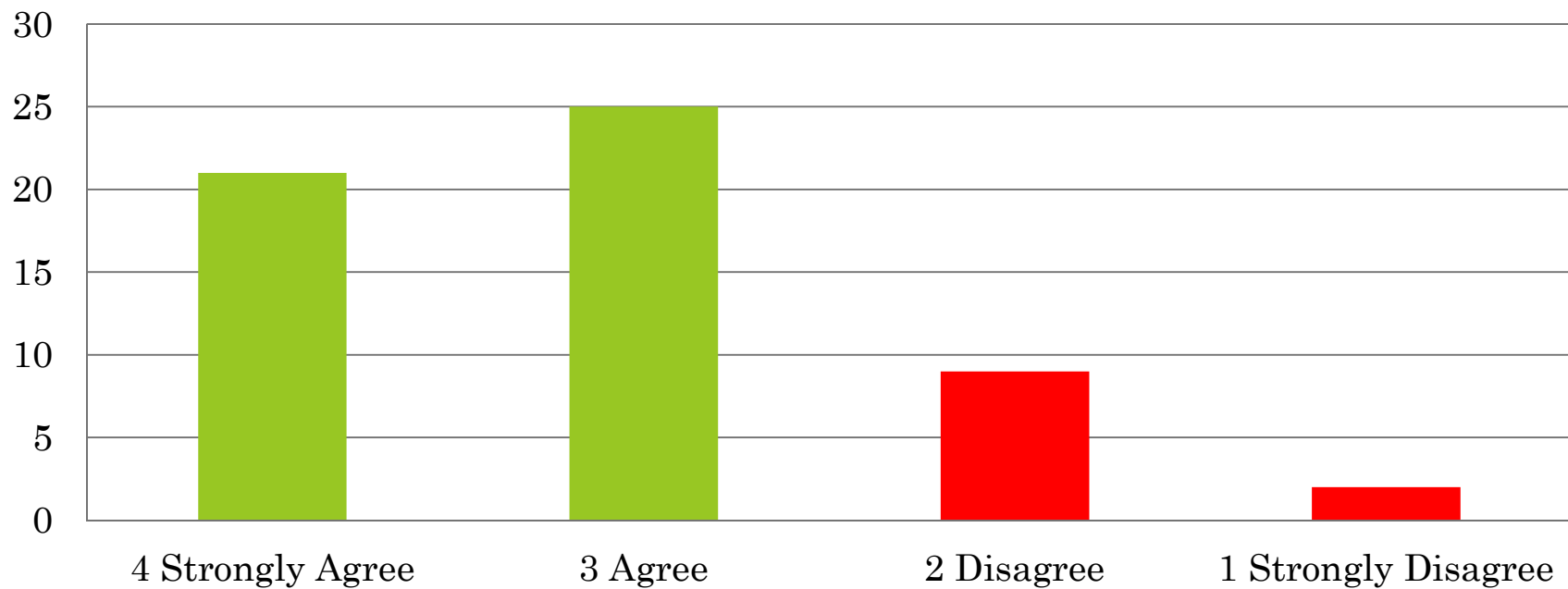


STUDENT REACTIONS TO GROUP WORK

- **Gave out anonymous surveys the last day of class**
- **Among the questions asked:**
 - Working in groups was a good way to learn?
 - Group work in class was good for learning concepts?
 - Group work in class was good for increasing interest?
- **Ratings from strongly disagree to strongly agree**

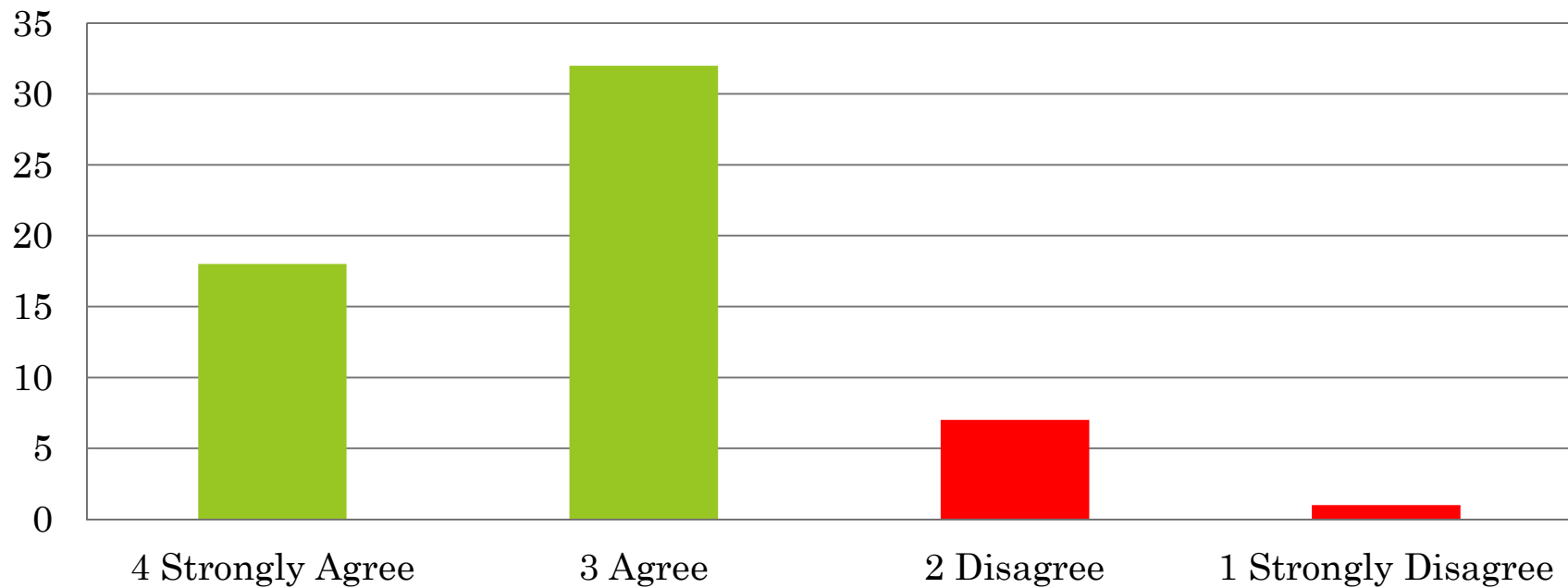
INCREASED GROUP ACTIVITIES REACTIONS CHART

A good way to learn



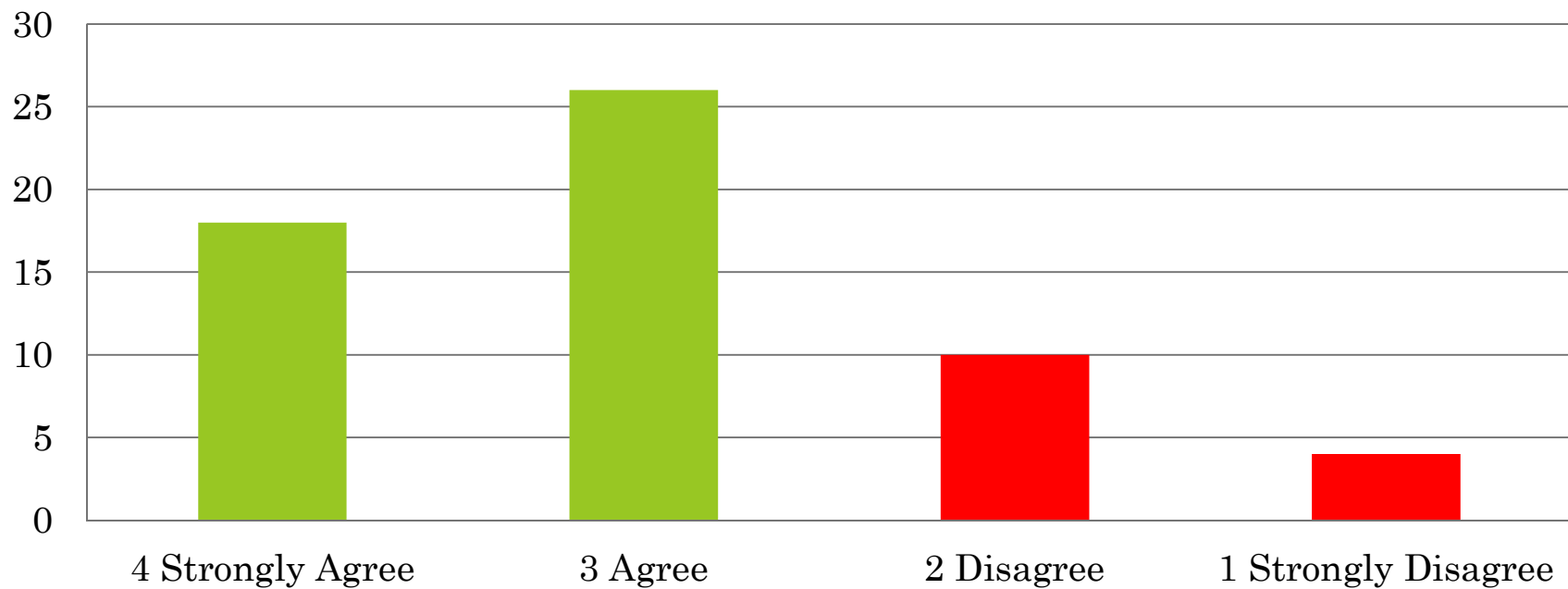
INCREASED GROUP ACTIVITIES REACTIONS CHART

Good for learning concepts



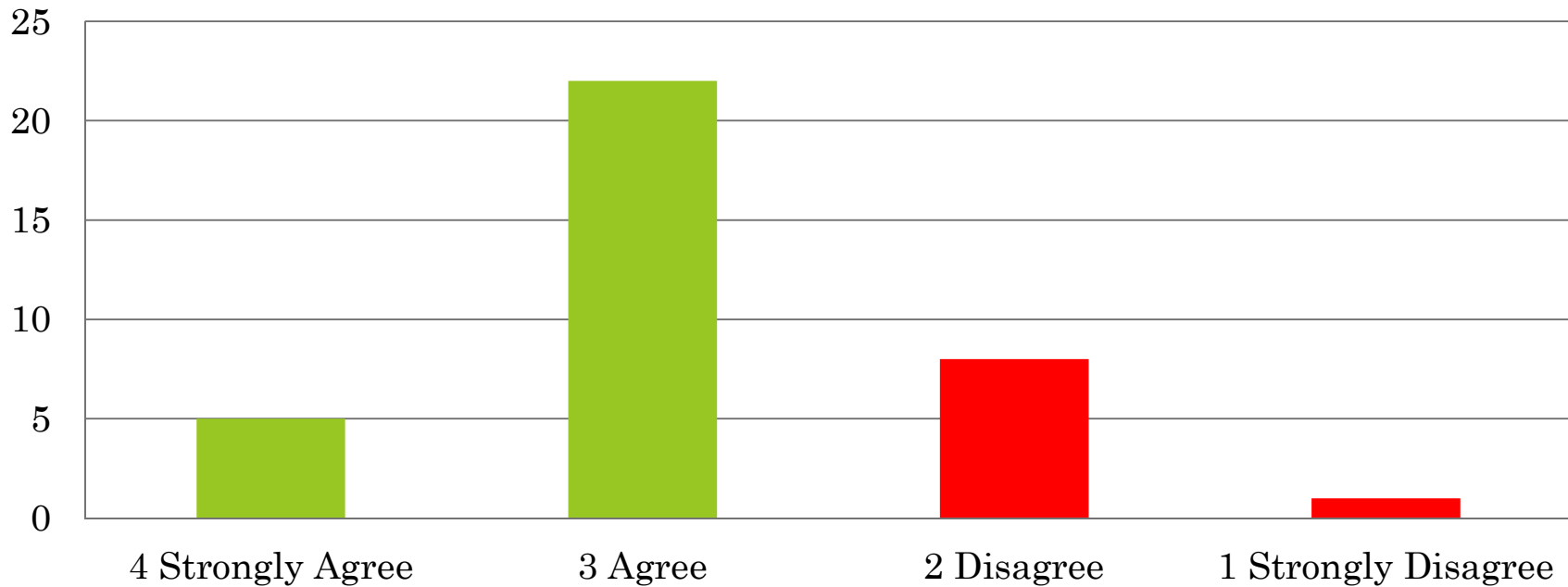
INCREASED GROUP ACTIVITIES REACTIONS CHART

Good for increasing interest

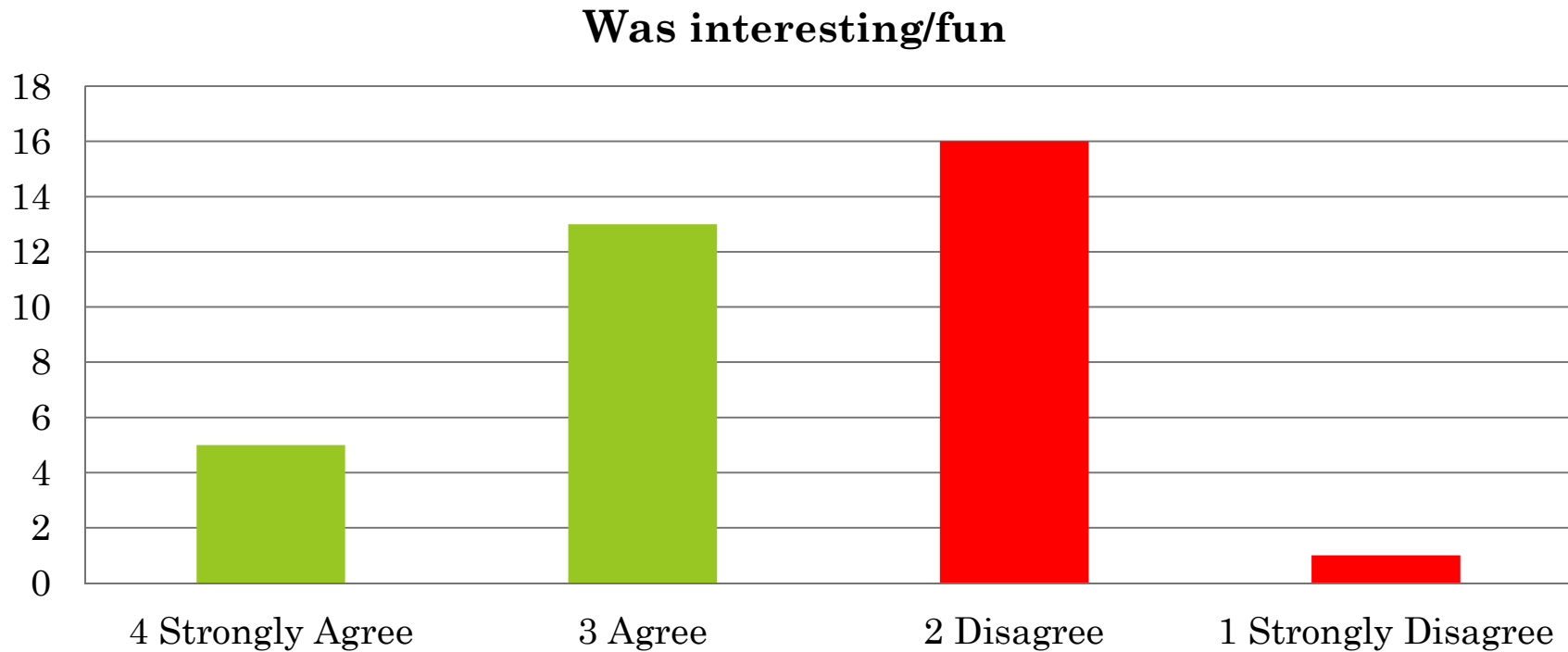


STUDENT-GEN'D QS REACTIONS CHART

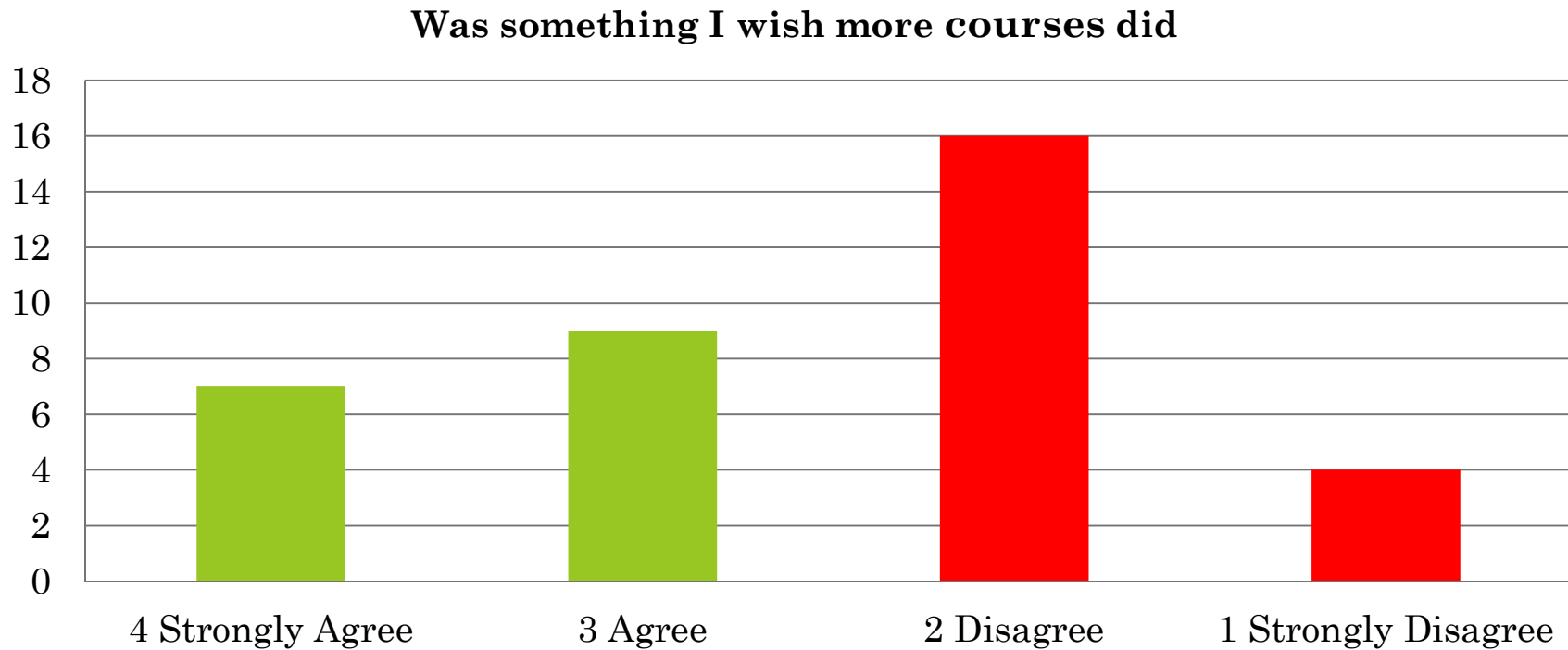
Helped me to learn material



STUDENT-GEN'D QS REACTIONS CHART



STUDENT-GEN'D QS REACTIONS CHART



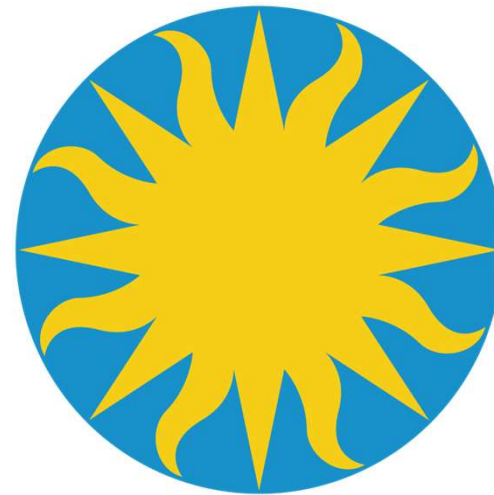
GROUP WORK: WHAT DID STUDENTS LIKE?

- “Being able to bounce ideas and thoughts off of one another was really useful and helped better my understanding.”
- “The unity. Everyone working towards a common goal is a beautiful thing.”
- “Getting to know other students in class.”



AN UNEXPECTED BENEFIT

- Optional Smithsonian Museum group project
- past years: 49% of students decided to do it
- last semester:
 - 96% in student generated questions classes
 - 55% in group work only classes

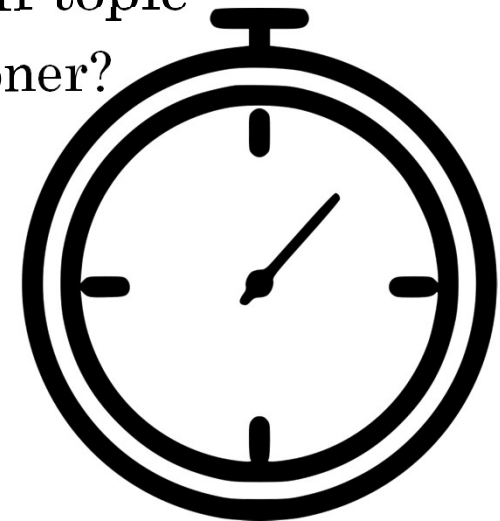


Smithsonian

PROBLEMS AND FIXES

-”Sometimes we get off topic ☺-Time consuming”

- Takes a lot of time
 - Rushed at the end of the semester (may have hurt finals)
 - Cut back on material, needed to cut back more
- Some students complained about getting off topic
 - Additional material for groups that finish sooner?
- Additional incentives?
 - Grading for group participation
 - Online submission for Student Gen'd Qs

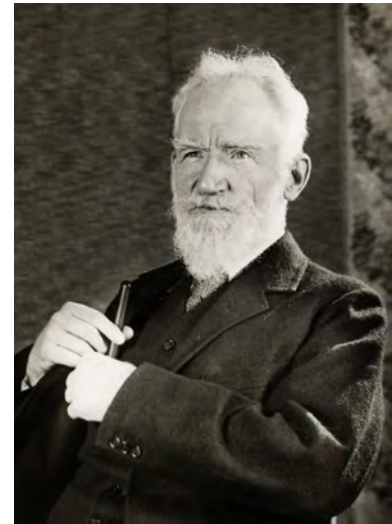


WHAT DID I LEARN?

- Creating and using groups has lots of advantages, even if they are not always easy to measure
- Most students DO like the use of groups
- I liked groups and the ↑ interaction
- There is lots of room for change and improvement

FINAL THOUGHTS ON MY SET EXPERIENCE.

- “Those who can, do. Those who can’t, teach”
- ... was said by someone who has never had to teach anything
- (Actually it was said by writer George Bernard Shaw)
- Teaching is a skill
 - It needs to change with the times
 - It needs interaction with other practitioners
 - It needs the space to try new things
 - SET has done all of these for me



SOURCES

- Barkley, Elizabeth F., et al. *Collaborative Learning Techniques: a Handbook for College Faculty*. Second Edition. Jossey-Bass, 2014.
- Bowen, Jose and Watson, C. Edward. *Teaching Naked Techniques*, Jossey-Bass, 2017.
- Fink, L. Dee . *Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses*, Jossey-Bass, 2013.