

Study Skills

Lunch Series in Teaching and Learning

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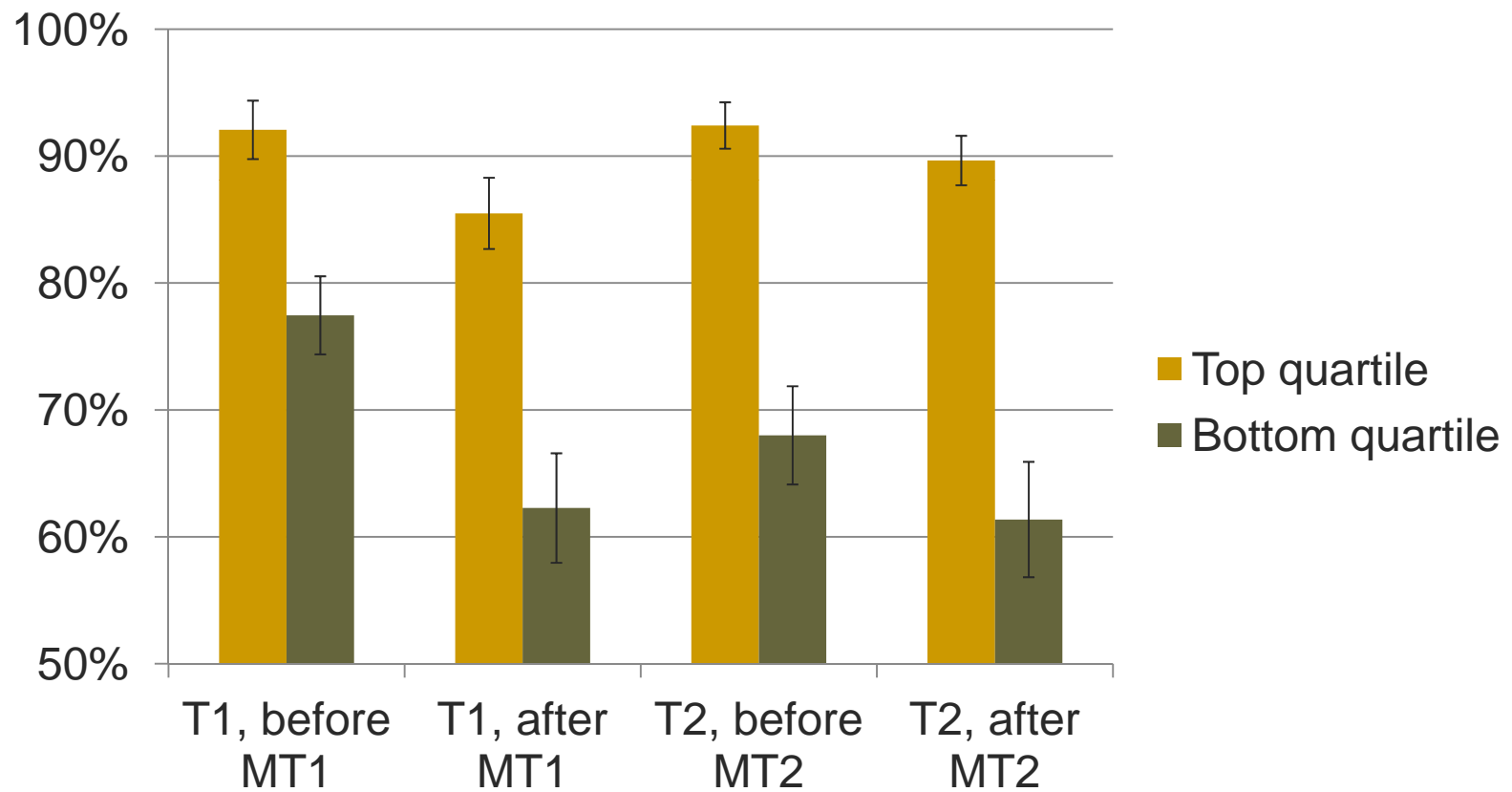
[Outline

- What do we know already about how students study?
- How can you collect this information?
- What are some ways to address student study skill gaps?
- Discussion: Your experience with student study skills.

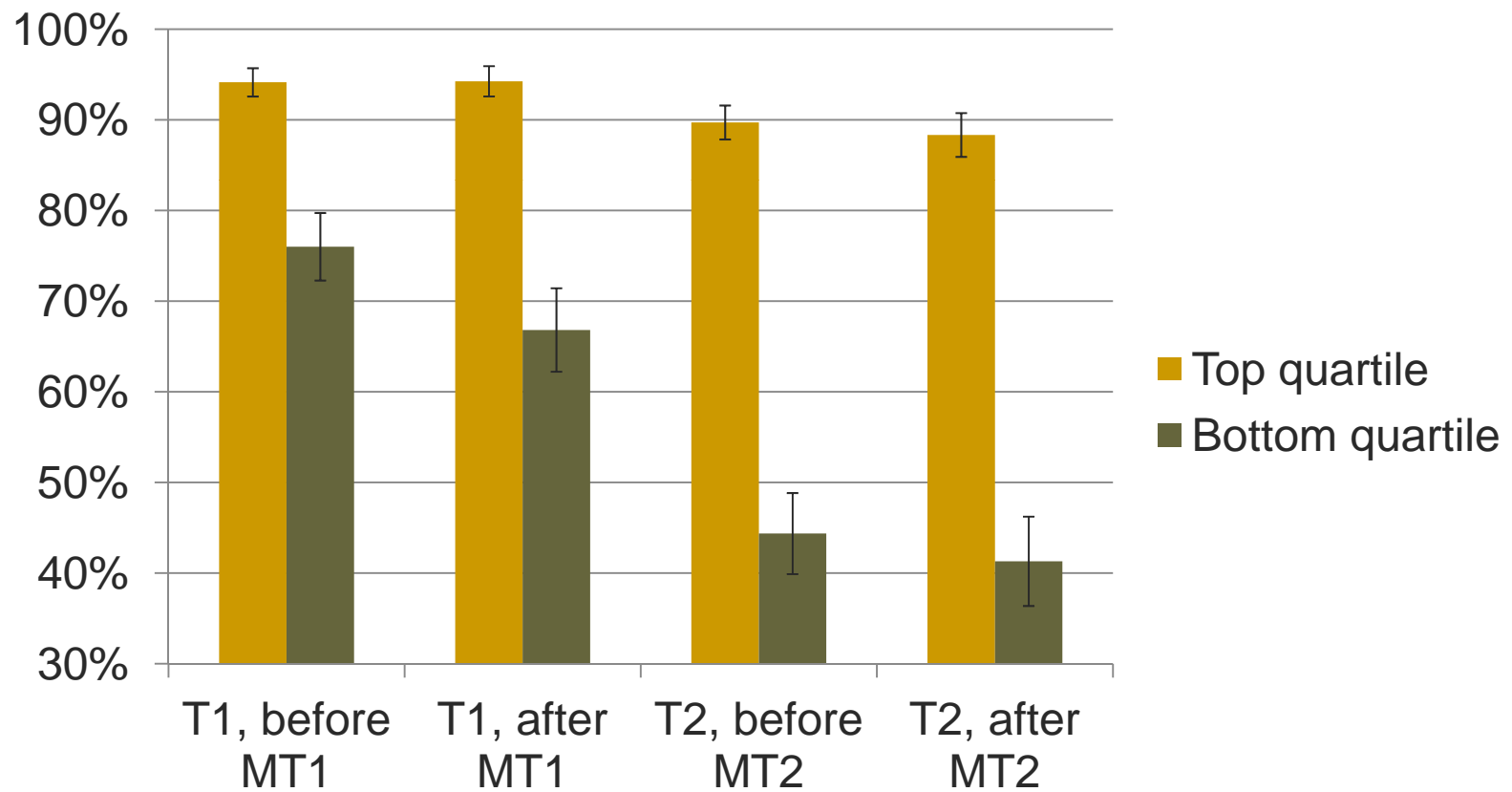
[What data do we have?]

- Math 110, Sept 2010 to Apr 2011.
- Compare between students in the top quartile and those in the bottom quartile (of most recent test grade).
- Some results from course grades, study habit survey and attitude survey.

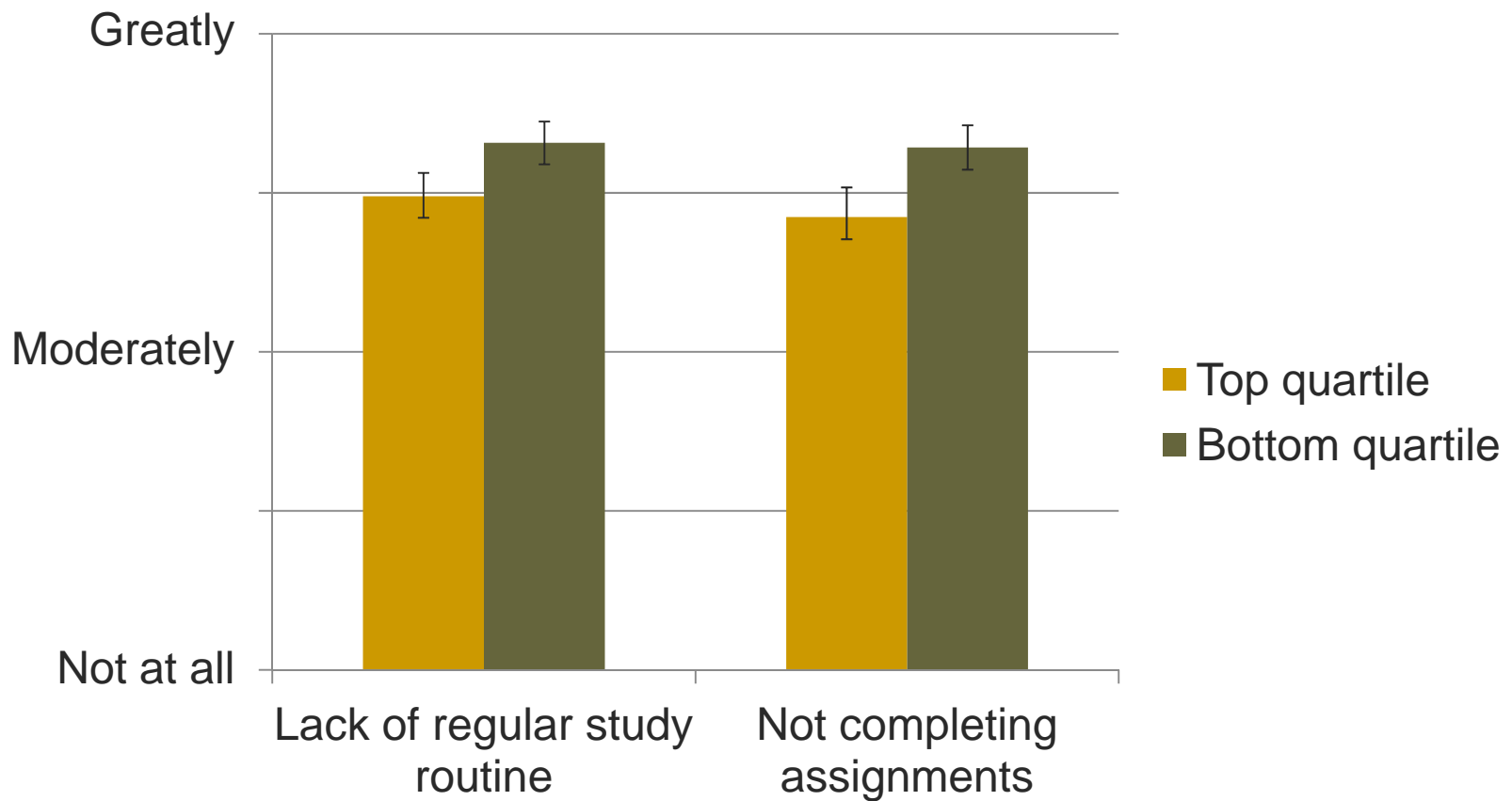
Workshop attendance



[Homework submission]



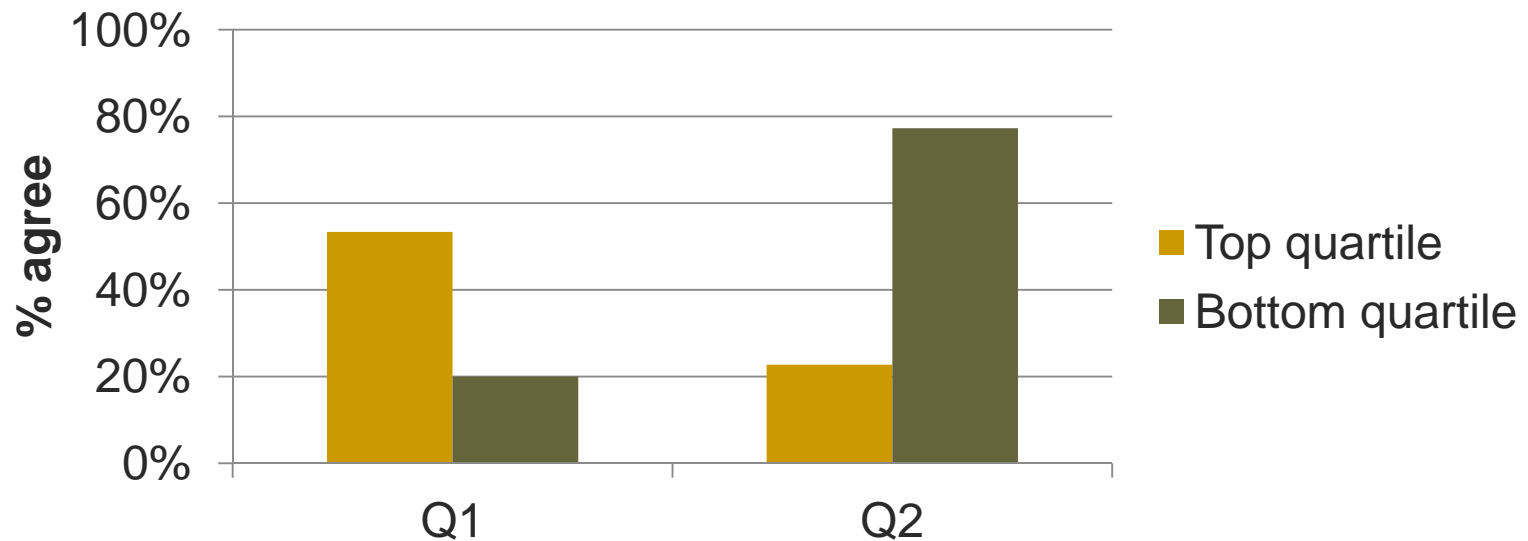
Factors influencing failure in math: Students' point of view



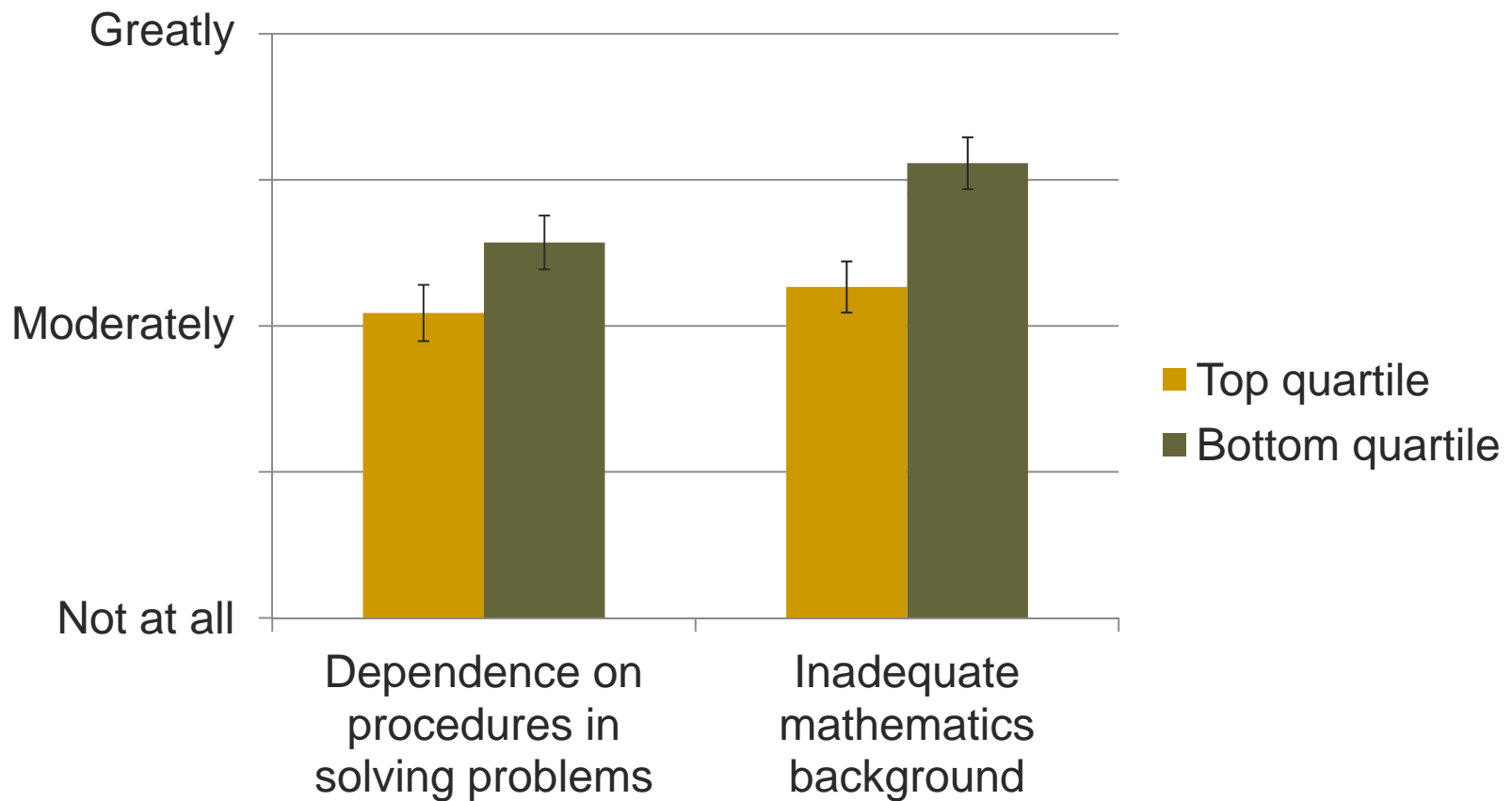
Confidence and interest

Q1: I can usually figure out a way to solve math problems.

Q2: I avoid solving math problems when possible.



Factors influencing failure in math: Students' point of view

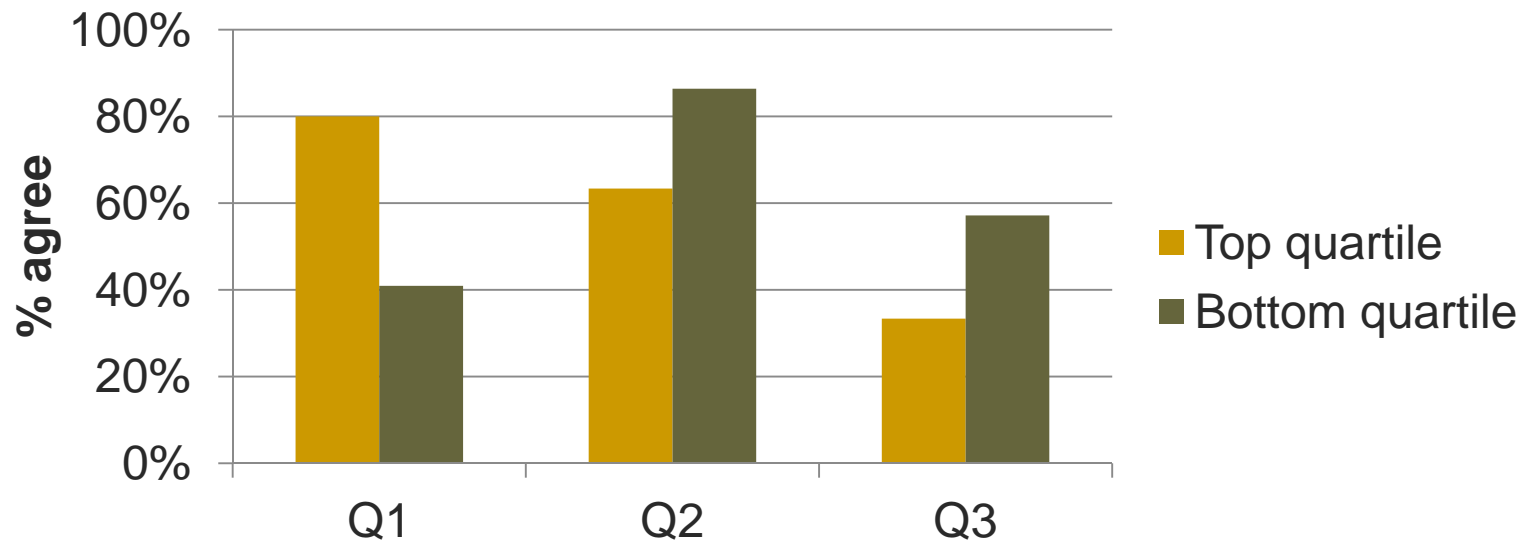


Dependence on procedures

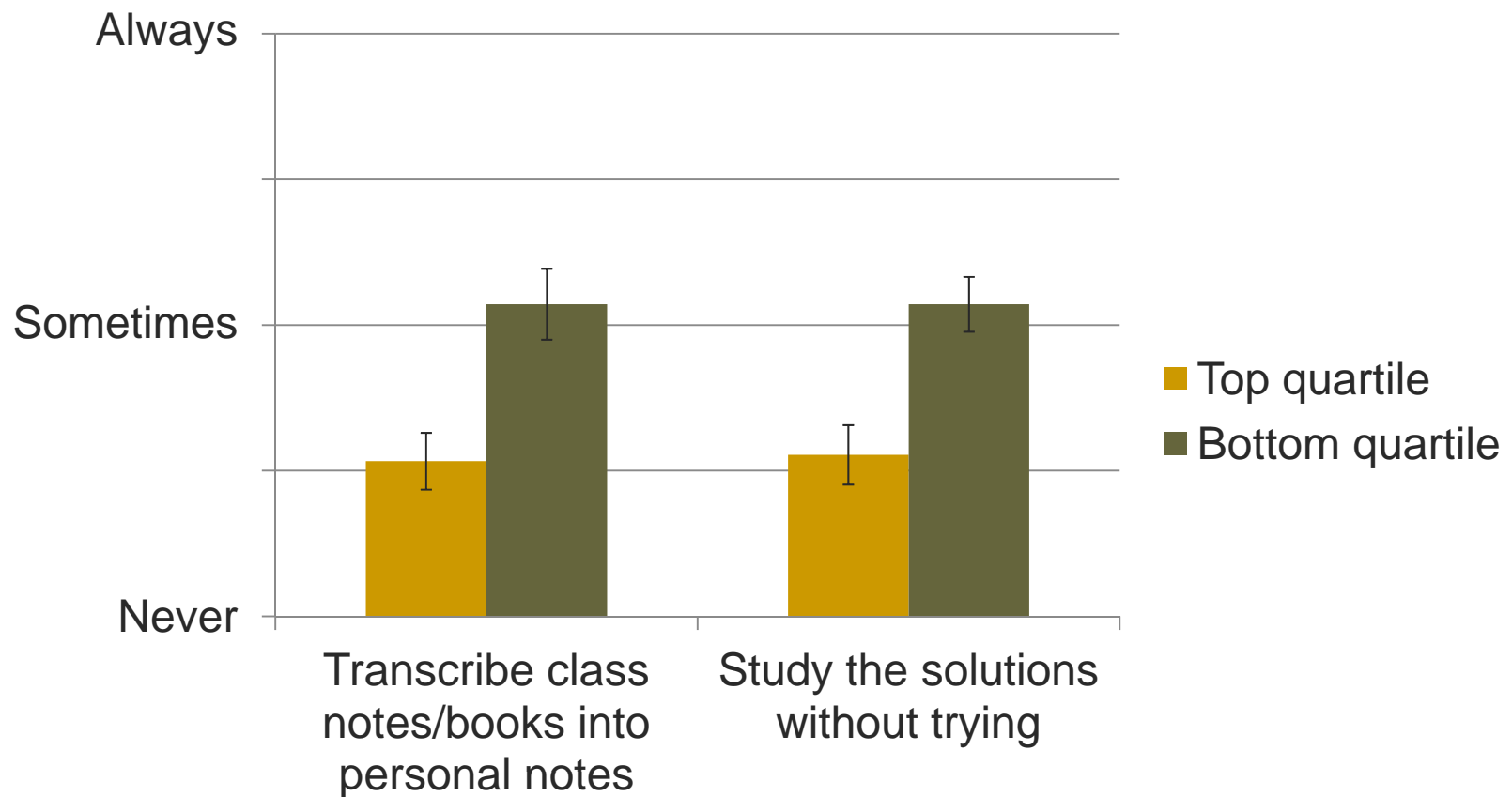
Q1: If I get stuck on a math problem on my first try, I usually try to figure out a different way that works.

Q2: When I solve a math problem, I find an example that looks like the problem given and follow the same steps.

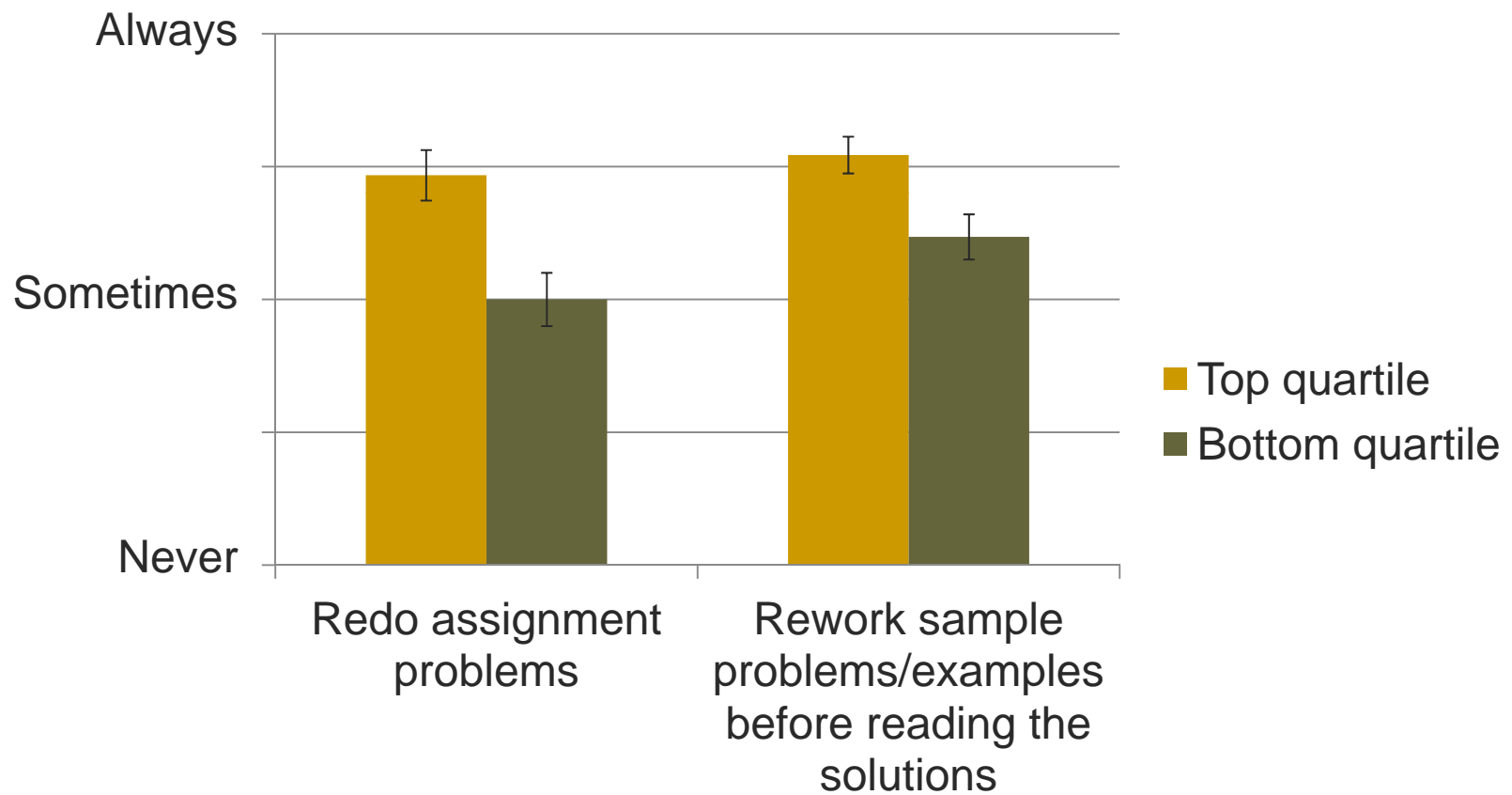
Q3: When I am solving a math problem, if I can see a formula that applied I don't worry about the underlying concepts.



What do students do when studying math?



What do students do when studying math?

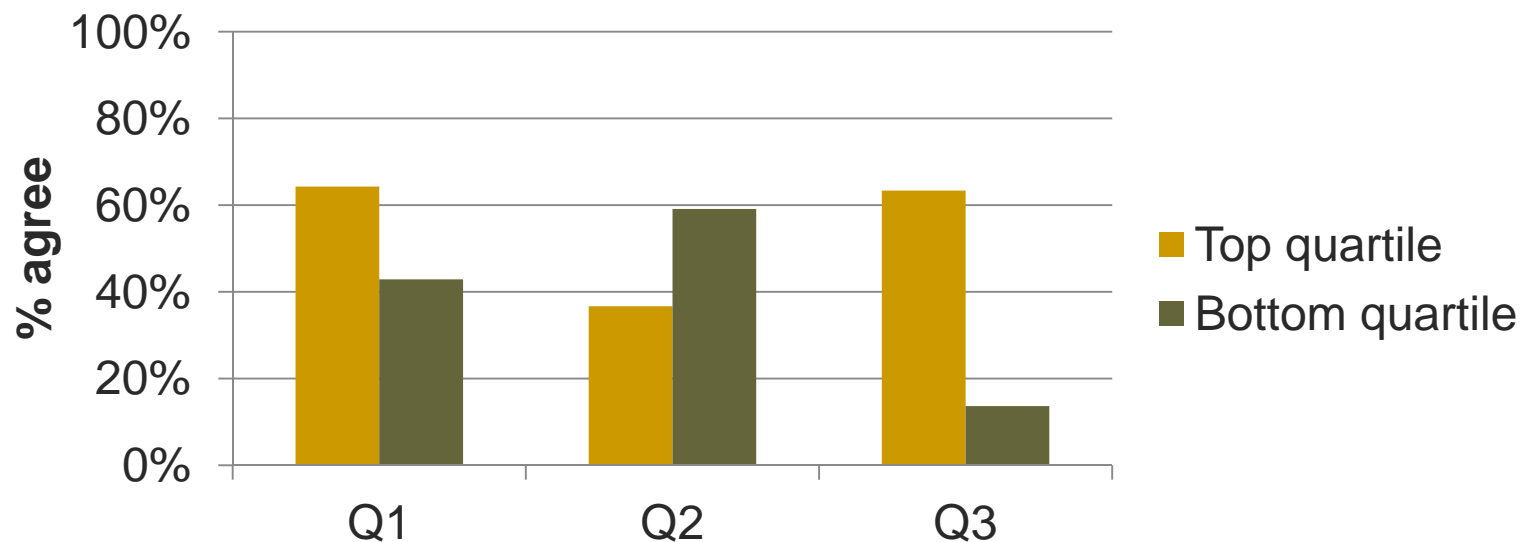


Connections between different topics

Q1: I will not consider myself to have enough preparation for my math test if I cannot see how concepts relate to one another.

Q2: An obstacle to learning math is having to memorize all the necessary information.

Q3: Learning math changes my ideas about how the world works.



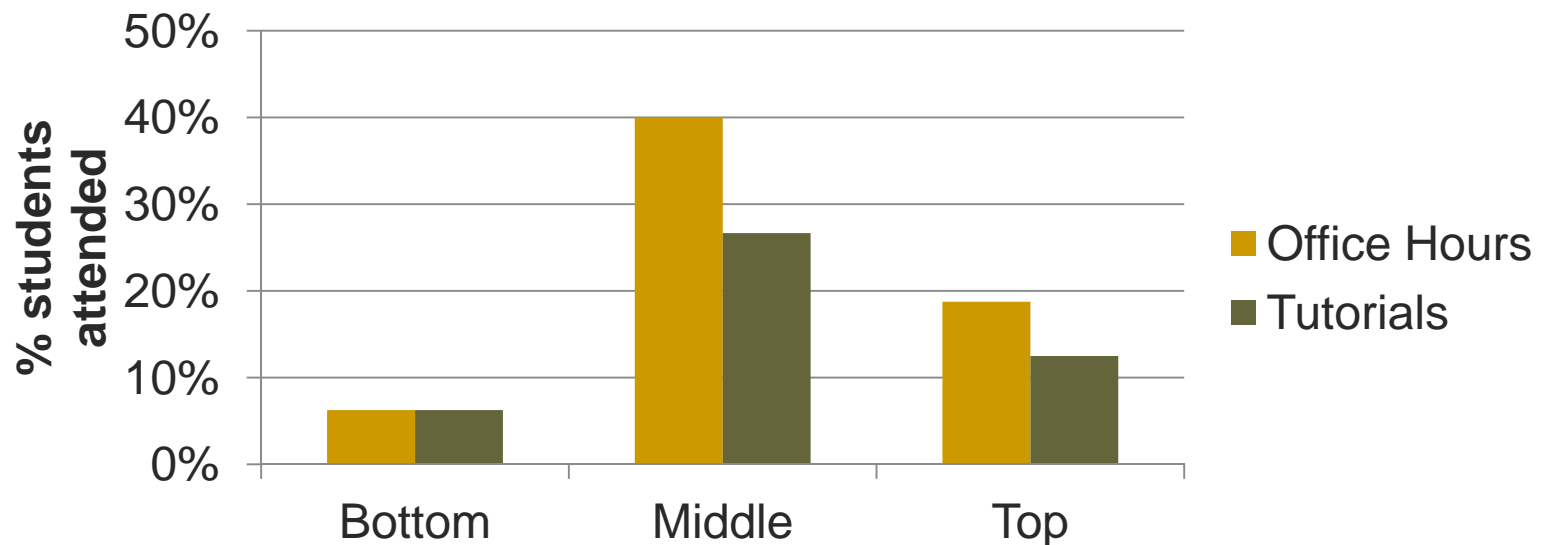
[Help seeking]

If we plot course grade on the horizontal axis and help-seeking events (office hours, tutorial centre) on the vertical axis, what does the graph look like?



Help seeking: Results from Science One

- From Science One study habit survey.
- Top and bottom students are less likely to seek help than the middle students.
- Results consistent with existing research.



[How can you collect this information?]

- Midterm evaluations/surveys.
- Smaller survey, perhaps earlier in the course (even start of term is possible).
- Weekly online survey if you are serious about data.

[Promoting study skills: Simpler options]

- Provide a handout on study skills that you mention or go over in the first week.
- Draw attention to study skills (and handout, if any) frequently.
- Point students to learning goals.

[Promoting study skills: More involved options]

- Grade incentives for certain “study” activities (e.g. recovering some test points via test review).
- Targeted reading assignments (likely need some attachment to course/grade).
- After first test, contact lowest-scoring students to visit you.

[Discussion]

- Does the data mentioned today match up with your own experience with students?
- How much of promoting study skills is “our job” as instructors?

[Thanks!

- Science One data courtesy of Eric Cytrynbaum with analysis by Costanza Piccolo.

For more detail,
see the CWSEI Resources page:
www.cwsei.ubc.ca
under the Resources tab.

Thank
You!!

Factors influencing failure in math: Students' point of view

