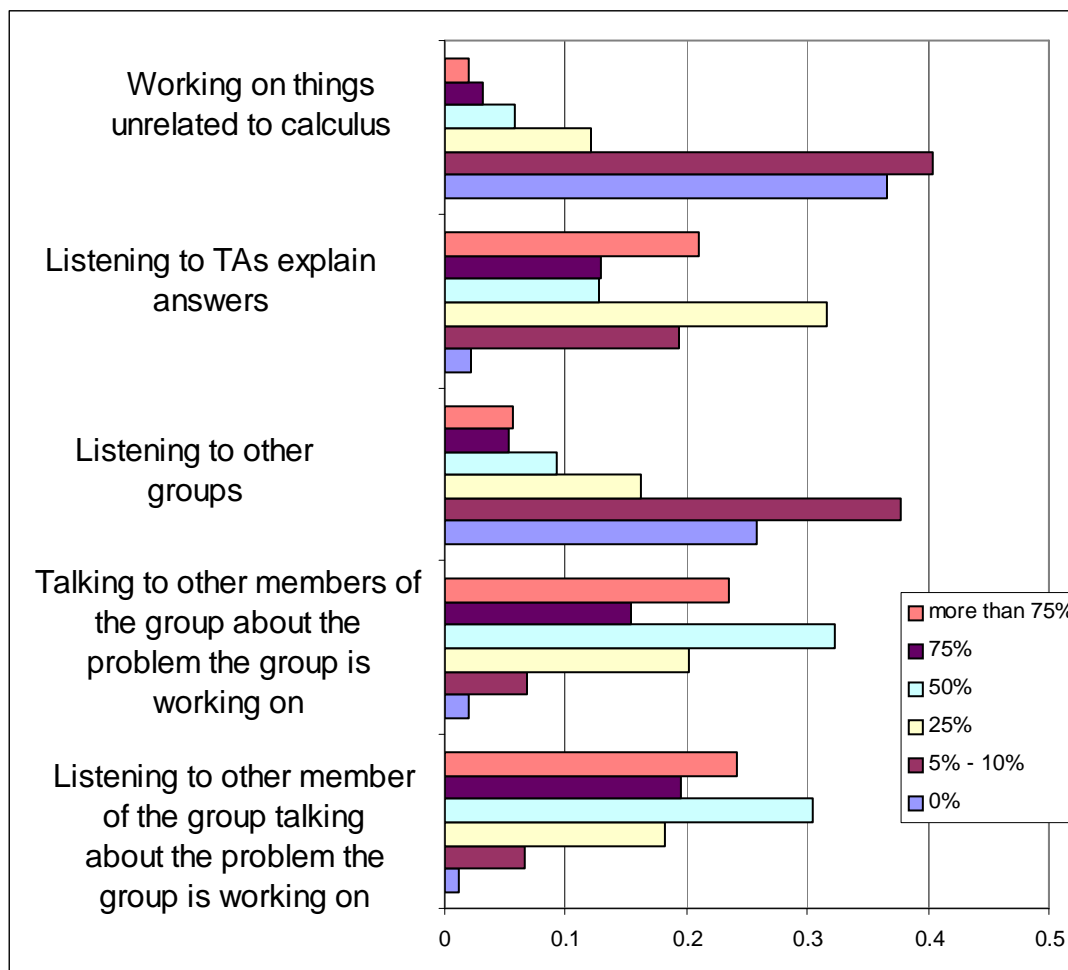


## 2010 Midterm Survey – Math 184 Calculus Workshops

Math 184 students seem to be slightly less happy with the workshops than last year, but happier than 2 years ago.

### Students' engagement

Overall, they seem to interact with their peers and the TAs as much as last year.

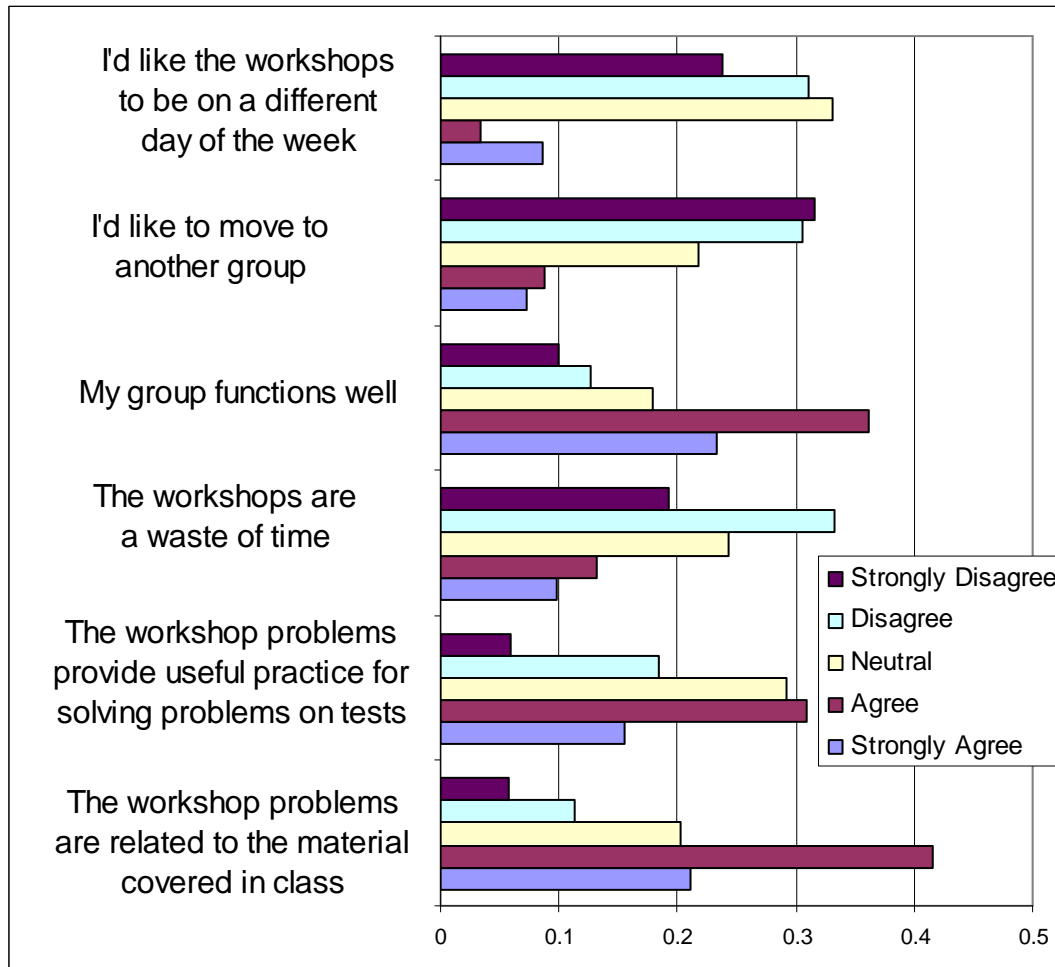


However, the percentage of students who get distracted and spend 25% or more of their workshop time on things unrelated to math has increased to 23% from 17% last year. However, students aren't as unengaged as two years ago.

MATH 184 "Time spent on things unrelated to math"	2008/09 (N=414, 79% of enrolled)	2009/10 (N=395, 78% of enrolled)	2010/11 (N=456, 84% of enrolled)
0%	34%	50%	37%
5%-10%	41%	33%	40%
25%	11%	6%	12%
50%	6%	3%	6%
75%	5%	3%	3%
>75%	4%	5%	2%

## Students' perceptions

Student perceptions of the workshops continue to be overall positive.



However, there is a slight shift toward negative perceptions if you compared these results to the same data collected around the same time last year. This year less students find the workshop problems related to the material covered in class, or find them useful as practice for tests. This also arises from reading students' comments: Students complained that the workshop problems were too hard and unrelated to what they see in class or do on their homework assignments. It is not obvious to me that this is in fact the case.

<b>Q.2.1: The workshop problems are related to class material</b>	<b>2009/10</b>	<b>2010/11</b>
Strongly Agree	28%	21%
Agree	46%	42%
Neutral	17%	20%
Disagree	6%	11%
Strongly Disagree	3%	6%

<b>Q.2.2: The workshop problems provide useful practice for solving problems on tests</b>	<b>2008/09 (end of term survey)</b>	<b>2009/10</b>	<b>2010/11</b>
Strongly Agree	17%	27%	15%
Agree	42%	39%	31%
Neutral	25%	25%	29%
Disagree	10%	7%	18%
Strongly Disagree	5%	3%	6%

The most worrying shift occurred with the perception on the usefulness (or lack of it) of the workshops.

<b>Q.2.3: The workshops are a waste of time</b>	<b>2008/09</b> (end of term survey)	<b>2009/10</b>	<b>2010/11</b>
<i>Strongly Agree</i>	5%	3%	10%
<i>Agree</i>	12%	7%	13%
<i>Neutral</i>	22%	21%	24%
<i>Disagree</i>	40%	41%	33%
<i>Strongly Disagree</i>	20%	28%	19%

About 23% of students (N=103) agreed with the statement “the workshops are a waste of time”, more than twice as many as last year!!

One possible reason why they think it’s a waste of time is bad group dynamics:

About 37% (N=38) of those who think the workshops are a waste of time also reported that their group doesn’t function well. Last year, less than 10% of all students were unhappy with their groups, whereas this year more than twice as many students said that...I don’t have any explanation of why group formation hasn’t been as successful this year.

To find out why they think the workshops are a waste of time, I looked at how thinking that the workshops are a waste of time correlates with

- thinking that the workshop problems are related to material covered in class
- thinking that the workshop problems are useful practice for solving problems on tests
- having a dysfunctional group
- spending 50% or more of their time on things unrelated to math.

	<b>50% or more</b>		<b>related to</b>	
<b>correlation coefficient (r)</b>	<b>time off task</b>	<b>bad group</b>	<b>class</b>	<b>useful for tests</b>
			<b>material</b>	
<b>Ws are waste of time</b>	0.03	0.20	0.25	0.25

Reporting to be spending a good fraction of workshop time on things unrelated to Calculus doesn’t seem to correlate with the perception of usefulness. This suggests that students who get distracted don’t necessary have a negative opinion of the workshops, and vice versa, students who have a negative opinion don’t necessary work less during the workshops. As expected, bad group dynamics is a potential factor for unhappiness, but the highest correlation is found with the perception of the workshops being disconnected from class material and tests. This also arises from some of the students’ comments: some students complained that the workshop problems are more difficult than what they see in class, and/or not related to what they do in class or on the homework assignments.