

Math 110 Workshop Survey Results, Winter 2010 T2

Students' responses:

1. How often do you attend workshops?

	T1	T2
Almost always (more than 80% of the time)	88%	
Usually (around 60% to 80% of the time)	10%	
Half of the time (around 40% to 60% of the time)	2%	
Rarely (around 20% to 40% of the time)	0%	
Almost never (more than 20% of the time)	0%	

2. Do you know what topics will be covered in the workshops beforehand?

	T1	T2
Yes, almost every week	14%	10%
Sometimes	62%	54%
No	24%	37%

3. During the workshops, what percentage of time on average do you spend on:
working on the workshop exercises individually?

	T1	T2
0-20%	16%	43%
20-40%	29%	34%
40-60%	29%	19%
60-80%	19%	4%
80-100%	6%	0%

discussing with your group members the workshop exercises your group is working on?

	T1	T2
0-20%	3%	1%
20-40%	10%	5%
40-60%	37%	22%
60-80%	26%	33%
80-100%	24%	39%

discussing or working on course materials other than the workshop exercises?

	T1		T2
0-20%	54%	0-10%	75%
20-40%	26%	10-20%	10%
40-60%	10%	20-30%	8%
60-80%	8%	30-50%	5%
80-100%	2%	50-100%	3%

discussing or working on things unrelated to course materials?

	T1		T2
0-20%	77%	0-10%	75%

20-40%	10%	10-20%	12%
40-60%	6%	20-30%	6%
60-80%	6%	30-50%	6%
80-100%	1%	50-100%	1%

4. Do you find the group discussion after the first write-up of the solutions useful for your learning?

	T1	T2
Very Useful		25%
Useful		55%
Neutral		18%
Useless		1%
Totally useless		1%

5. What do you think about the length of the exercises in the workshops this term?

	T1	T2
Too long	8%	3%
Long	25%	25%
Reasonable	65%	71%
Short	1%	1%
Too short	0%	0%

6. What do you think about the level of difficulty of exercises in the workshops this term?

	T1	T2
Too difficult	13%	15%
Difficult	43%	52%
Reasonable	42%	32%
Easy	1%	1%
Too easy	0%	0%

7. The problems in the workshops this term are related to the materials covered in class.

	T1	T2
Strongly agree	12%	6%
Agree	46%	42%
Neutral	26%	31%
Disagree	14%	15%
Strongly disagree	2%	6%

8. The problems in the workshops this term provide useful practice for solving problems on assignments/tests.

	T1	T2
Strongly agree	14%	6%
Agree	51%	40%
Neutral	28%	36%
Disagree	7%	16%
Strongly disagree	0%	2%

9. The workshops this term are a waste of time.

	T1	T2
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Strongly agree	3%	2%
Agree	7%	6%
Neutral	23%	24%
Disagree	53%	56%
Strongly disagree	13%	12%

10. I prepare for the workshops beforehand.

	T1	T2
Strongly agree		0%
Agree		3%
Neutral		20%
Disagree		55%
Strongly disagree		22%

11. Most of my group members come to the workshops this term.

	T1	T2
Strongly agree	16%	26%
Agree	49%	44%
Neutral	20%	15%
Disagree	13%	9%
Strongly disagree	3%	5%

12. My group functions well during workshops this term.

	T1	T2
Strongly agree	24%	35%
Agree	51%	52%
Neutral	18%	8%
Disagree	8%	2%
Strongly disagree	0%	3%

13. I would like to move to another group.

	T1	T2
Strongly agree	1%	
Agree	6%	
Neutral	22%	
Disagree	36%	
Strongly disagree	36%	

14. Group works in the workshops are helpful for my learning.

	T1	T2
Strongly agree		21%
Agree		53%
Neutral		20%
Disagree		5%
Strongly disagree		1%

15. The TAs in the workshops are helpful.

	T1	T2
Strongly agree	37%	52%
Agree	57%	46%
Neutral	4%	2%
Disagree	2%	1%
Strongly disagree	0%	0%

Summary:

- In general, students participate in group discussion more in Term 2 than in Term 1
- Students think that group works are useful for their learning.
- Students don't usually know what will be covered in the workshops beforehand and don't usually prepare for the workshops.
- The length of the workshop exercises seems reasonable, but the level of difficulty appears to be high.
- Students don't always find the correlation between workshops and course materials.
- Students think that workshop TAs are very helpful.

Things that have improved:

- 55% (T1) vs 23% (T2) of students spent more than 40% of the time working on workshop exercises individually.
- 50% (T1) vs 72% (T2) of students spend more than 60% of the time discussing with their group members when working on the exercises.
- 46% (T1) vs 16% (T2) of students spend more than 20% of the time working on course materials other than the workshop exercises.
- 75% (T1) vs 87% (T2) of students think that their groups function well during workshops.

Things that got worse:

- 24% (T1) vs 37% (T2) of students did not know what topics will be covered in the workshops beforehand.
- 15% (T1) vs 21% (T2) of students think that the workshop exercises are unrelated to lecture materials.
- 7% (T1) vs 18% (T2) of students think that the workshop exercises are not useful practice for solving problems on assignments and tests.

16. In your opinion, what things about the workshops this term worked well? (173 responses total)

Group work/group discussion	60
Helpful TAs	43
Workshop structure: group discuss -> individual write-up -> group discussion -> individual write-up + questions are randomly assigned to individuals after first group discussion	41
Working on board	11
Related to lectures/assignments	10
Good workshop problems	9

17. In your opinion, what things about the workshop this term didn't work well? (Number of responses)

Unrelated to course materials/not covered in class	39
Level of difficulty	29
Attendance – groups falling apart	11
Not enough time/information to prepare beforehand	11
Not enough time to complete workshop problems	9
Individual write-ups – prefer group write-up	7
Group participation – groupmates do not involve in discussions	6
Not enough TAs – long waiting time	5

18. Do you have general comments about the workshops this term?

- Q&A sessions during workshops
- Discuss previous weeks' problems
- Post workshop solutions online
- TAs should have solutions
- Prefer Webwork-style questions
- More discussions between TAs and instructors

Observations/comments by the TAs and me:

- Students in general enjoy the workshops this term.
- Students are more engaged in the current format.
- Many groups did not know how to start the problems without help.
- Students feel that they don't learn anything when doing problems too difficult for them.
- Some students think that the workshop problems are not covered in lectures.
- Some students complained about the switch of workshop format in the beginning of the term.
- Some students don't explain to their groupmates even they know how to do the problems. Others do not trust their groupmates' explanation. They depend on TAs too much.
- TAs did not get the solutions in advance and did not know how the course materials are taught. As a result, TAs sometimes don't know how to solve the problems or teach students in ways unfamiliar to students.
- TAs did not get the marking schemes early enough so they didn't have enough time to provide feedback when grading.
- TAs did not meet with the head TA during the term.
- Not many students read TAs comments when getting back their graded work.

Recommendations for next year

- Could provide students clearer/more explicit description on upcoming workshops, perhaps having small quizzes/clicker questions during lecture about materials covered in workshops beforehand.
- Solutions could be given to the TAs before workshops start.
- Could have the head TA make up the solutions/marking scheme.

- Could have more discussion with the head TA. Also, the head TA should meet more with the other TAs to discuss about the issue arisen during the term.
- Workshop solutions could be posted online at the end of the week.
- Be flexible with the groups – could rearrange groups with fewer than 3.
- Workshop problems could be more related to what students saw in lecture/homework or expect in tests/exams so students can see the relevance.