



On Friday, 8/21/09, we held our first workshop of the series entitled Math Teacher Talk (MT²). Our discussion focused on classroom assessment techniques, with the side benefit of sharing some general do's and don'ts.

CLASSROOM ASSESSMENT TECHNIQUES

1. *Simultaneous Voting*. How many times have you received a poor response from your students in the following type of situation: “Raise your hand if you need more time...”? Many students are afraid and/or embarrassed to respond. One remedy is to train your students that they always must respond, and always offer two choices. For example, you could give the following instruction: Raise your right hand if you are finished with the problem or your left hand if you need more time.” I have found that, for the most part, all students respond. It is also quite easy to see how many left hands are raised so that the instructor can assess whether the students are ready to move on.
2. *Surveys*. Administer an informal survey early in the semester so that the students may assess the class. Be sure to include the following items:
 - a. What do I do well?
 - b. What can I change?Survey Monkey is a quick easy way to administer online questionnaires, or just do it the old-fashioned way with pencil and paper!
3. *Board Work*. Train students to work problems on the board. You can motivate them by offering a small amount of extra credit and/or partner them up so that they are less nervous. Board work allows instructors to see and then address common errors. Board work increases student participation and encourages a collaborative learning environment. The students help each other with the board work and this extends to how they work with each other during other class activities.

4. *Exit Problems.* During the last 5-10 minutes of class, give the students an exit problem. The problem should be similar to what was covered during class that day. This enables the instructor to focus on the students who need the most help with that topic during the last few minutes of class. The students who successfully finish the problem can either leave a minute or two early or help other students. An instructor could also extend the concept with a longer problem. Just be sure the faster students stick around to work with the other students!
5. *Worksheets.* It is always great to have a worksheet ready for class. This gives the instructor an opportunity to consult with individuals and/or small groups. Again, one sees common errors right away, which enables the instructor to address these issues to the class as a whole. The other benefit is that you never need to worry if the lecture goes too fast. You can then put the students to work on the worksheet!

GENERAL WORDS OF WISDOM

1. Gradually reduce your contribution towards the steps of a problem. Call on individuals or rows to fill in the blanks.
2. Always wait 5-10 seconds after you ask a question. This allows students to formulate their responses.
3. Put review days in your class schedule. This gives you time to go over a practice test, homework questions, etc. You could give sample problems and have the students work them out. You could also ask students what types of questions they think might be on the exam.
4. Groups.
 - a. Four is a magic number.
 - b. If you have 40 students, put them in groups of 4. Provide a worksheet with 10 problems on it. Then have either the whole group or the “group expert” work one problem on the board. This allows each group to be responsible for one presentation and the students will see the solutions for all 10 problems.

5. Math XL. You can check how much time each student spends on the homework. There are section videos you can direct the students to watch if they need further instruction on a topic.
6. Say something is not correct versus wrong.
7. Tutors. Be sure you get to know the tutors. This allows you to find out the topics with which the students are having trouble.