

What Makes a Good Math Teacher ?

Most “good” math teachers have the following in common.

They have:

- A solid **understanding** and knowledge of the material
- **Good rapport** with students
- Good verbal and written **communication skills**

They are:

- Well **prepared** and organized
- Able to **articulate expectations** clearly

- Able to **explain** concepts clearly, simply, and in several ways
- **Perceptive** and knowledgeable about student abilities
- Able to “think on their feet” and **improvise**

- **Patient** and able to answer questions without making students feel “dumb”
- **Enthusiastic** about math and teaching
- Able to show that they **care** about their students

- **Available** outside of class (within reason)

Many of you suggested that it is also important for a good teacher to be funny, charismatic, attractive and engaging. These qualities are, of course, very helpful, especially if one’s goal is to get high ratings on student evaluations. Teachers who focus on making the subject fun and entertaining students, though, are not necessarily the most effective; particularly at the college level. It is sometimes necessary to sacrifice our own popularity and the short-term happiness of our students in order to meet our long-term goals of developing mature students who are in fact more engaged with the course material than they are with our personalities.

I think that we should, though, all focus on becoming more adept at developing the following skills:

- Become **good motivators**. This involves finding interesting ways to present material, getting students to interact with us and their peers, and setting course policies that help motivate students to make their best efforts in our classes, and to continue with math in the future.

- Devise ways to help students become **engaged with the course material**; both during our presentations in class and through assignments outside of class.

How Do Effective Math Teachers Engage Their Students ?

I would like you to visit at least two classes and pay special attention to the things the instructors do to try to engage their students in the presentation. For each class you visit, think about the following questions:

1. Roughly what percentage of the students actually appear to be engaged in the presentation ?
2. What measure are you using to decide if students are “engaged” or not ? For example, asking questions, taking notes, listening attentively, doing clicker or other exercises, etc. could indicate engagement.
3. What are the students who are not “engaged” doing ?
4. What specifically does the instructor do that encourages (or requires) engagement ?
5. What limitations are imposed on the instructor by the learning environment (class size, time, student mobility, etc.) that might keep them from creating a more interactive class ?

Here is a short list of some of the very effective instructors in our Department who would be willing to have you visit their classes. You should email them beforehand to make sure the time you have chosen is a good day. If you are interested in watching clicker use in action, be sure to say that. Not all clicker users use them every class day.

Steve McKinley	M118 TR 11:15 – 12:30 TR RH 100
Shabnam Kavousian	M118 TR 8:00 – 8:50 RH 100 (clickers) T101 TR 11:15 – 12:30 AC C102 (until Nov. 4)
Tracy Whelan	M119 MWF 11:15 – 12:05 or 12:20 – 1:10 RH 100 (clickers)
Erica Isaacson	M118 TR 2:30 – 3:20 RH 100 M211: MWR 4:40 – 5:30 or 5:45 – 6:35 SE 105
Jim Hendrickson	M118 MWF 8:00 – 8:50 or 9:05 – 10:10 RH 100
Kiah Wah Ong	D116 MWF 1:25 – 2:15 BH 330 or MWF 2:30 – 3:20 JH A100
David Sprunger	D116 MWF 8:00 – 8:50 BH 109 or MWF 10:10 – 11:00 SB 150