

Making Math Tutorials More Useful and Meaningful

Far too often in Math tutorials, students are focused on getting the answer to a problem, rather than what they really need, which is to have a clear understanding of, and to have mastered, the process involved in the problem. When watching tutorials, particularly when the tutor or students are directing the presenter through the problem, it is fairly clear that the presenting students are often not going to be able to do a similar problem in the future.

There are simple things that can make it far more likely that students will actually get maximum benefit out of Math tutorials:

- 1) Make sure that Math questions are Level 2 questions. e.g. How do you solve/What is the process for solving/How do you figure out: $5x - 18y = 63$ (Makes $5x - 18y = 63$ a Level 2 question.) This can help change the thinking about the Math tutorial questions - the focus is on the process.
- 2) Insist that students have handy their Math notes/text, or whatever source they used to create the question.
- 3) Ensure that part of the math tutorial involves the presenter describing, and writing the process on the board. Making the T Chart below part of what goes on the whiteboard during any Math tutorial would be an easy way to do this. This leads them to actually describe the process, which is the really important part of what they should walk away with. They should be talking about, and writing the steps to the process they use to come up with the answer. Saying and writing the steps in the process will make it stick in their heads. This will take longer, but it is OK if you don't get through all of the questions. It's better to focus on quality, rather than quantity.
- 4) Insist that tutors and students ask questions rather than telling the presenter how to do the problem. The only person who should be at the board working on the problem is the presenter.

(On the whiteboard)

How do you solve ...?

T Chart

Equations / Numerical computations

Process Description / Written Steps

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