

How Faculty in Non-Math Disciplines Can Involve Their Students in QEP Activities

JCTC's QEP is about helping students succeed in math. That means everything from learning the most basic math skills to achieving the level of proficiency needed to pass the math class required for the student's major.

But that doesn't mean that those of us in non-math disciplines have no role to play. Reinforcing for students how important and useful math is in a variety of disciplines and every day contexts is a fundamental part of helping them overcome math anxiety and succeed in learning and using math. The term used in the QEP is **quantitative literacy** which is defined as "the ability to read, write and speak mathematics." This will require the introduction of mathematical concepts in a variety of fields and contexts so that students can see math is not only found in the math classroom.

How can you help support students in becoming more successful in math? It's not complicated and you are probably already doing some activities in your classes that address math. The goal of the QEP is to consciously think about how you might use those same activities to reinforce basic math skills for your students.

Below are four ideas for introducing and talking with students about math in your specific discipline. These are only general ideas, but hopefully might spark some of your own that you can incorporate into your syllabus in the future.

Idea # 1

After an exam or assignment have students calculate their current grade in the course. This could involve adding points to get a total, determining a percentage of points attained and the coinciding letter grade, and/or determining how many points are still needed to reach a certain grade in the class. Students often need to be led through this activity with examples. We assume that students can calculate basic totals and percentages, but that is not always true.

Idea # 2

If students take a self-assessment have them calculate the results rather than just attain a total (this may require addition, subtraction, division, multiplication depending on the assessment). Again, students may need to be led through this activity rather than just assuming they can correctly calculate simple formulas.

Idea # 3

If there are charts or tables in the textbook, ask students to analyze what these charts or tables report. Students often cannot correctly read these types of graphic reports. Ask them to write responses or discuss in class answers to some basic questions such as:

1. According to the chart how many fall into X category? What percentage of the total is that?
2. How does column X compare to Y ?
3. Do any numbers reported in this chart surprise you based on what you know? Why or why not?
4. What conclusions can you draw based on the numbers reported here?
5. What other numbers would you need to understand this situation better?

Idea # 4

Have students create their own charts or tables based on information provided in the textbook or numbers that you give them. Have them explain why they chose to create the chart or table that they did and what the numbers included mean. If possible, students might actually collect their own data (measurements, survey responses from the class, additional readings) to create the charts.

These are simple ideas to encourage students to see and use math in a variety of disciplines. One way to make the connection to the QEP clear for students when doing these activities is to list them as “QEP Activities” in the syllabus. A brief overall statement like the sample below and /or just a star or other heading on the activities themselves can reinforce for students how math is used in your discipline.

JCTC QEP: In 2009 JCTC began a five-year Quality Enhancement Plan to help students succeed in math. See www.Jefferson.kctcs.edu/Counts for more information. With that in mind, one goal is to learn basic quantitative literacy skills that can be used in a variety of courses and real-life situations. In this course, we will be using some basic math skills from time-to-time. You will see these activities highlighted in the syllabus as QEP Activities.

If you would like more information about how to incorporate math into your non-math discipline or would like any other information about the QEP and how to become involved and help students succeed in math please contact one of the faculty members below.

Donna Elkins 213-7112 donnam.elkins@kctcs.edu

Cathy Wright 213-7273 catherine.wright@kctcs.edu

Stacy Taylor 213-5152 stacy.taylor@kctcs.edu