

# Do, Check, Teach

## A Powerful Teaching Strategy for the Math Classroom

*By Mark Tully, Published 1/26/2005*

### **An Effective Math Strategy**

One very effective teaching strategy to use in your math classroom is called “**Do, Check, Teach**” or simply, DCT. In “Do, Check, Teach” students are paired up with a partner, often a student seated next to them. After I have taught a new math concept, and the students are ready to begin their math assignment, I often require students to use DCT on the first few problems.

### **Do, Check, Teach**

In DCT, “**Do**” refers to students actually attempting to solve a given math problem independently. The students then “**Check**” their answer with their partner. If the answers agree, it is assumed that both students have obtained the correct result and the students may proceed to the next problem. If the answers to the problem are different then the students share their processes with each other and ultimately one student will “**Teach**” the other how to solve the problem. If neither student can come to the correct solution then teacher intervention may be necessary. I do not allow one student to move on to the next problem until both students have completed the problem at hand and have agreed on a common answer. This prevents the faster student from racing ahead and then being forced to wait for the slower student.

### **Why Use the “Do, Check, Teach” Method?**

One of the primary benefits of DCT is that students are often re-taught the math concept in a new way that may make more sense to them or add to their previous understanding. Students communicate in their own language, using words and expressions that may truly be foreign to the teacher. At times their ability to relate a mathematical concept to a peer may supersede the ability of the professionals—you and me.

A second benefit of the DCT strategy is the mathematical discussion that occurs during the students’ use of this method. Students engage each other in mathematical dialogue that is all too often missing in the our classrooms. We need more opportunities to escape the teacher monologues that fill up so many classroom minutes. As the students discuss their math problems they are able to clarify their thinking and create meaning in the context of their assignment. As teachers we know that our depth of understanding is increased as we prepare to teach others. The same dynamic is true when one student teaches another. The student learner also benefits and may become the teacher on another problem.

### **“Do, Check, Teach” Tip**

DCT works very well with students of varying abilities, but I recommend that you only require students to complete three to five problems using this method. After this the faster students often feel held back by the slower students. However, I have found that many pairs of students will continue to practice DCT as they continue their assignment.

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