

How to Promote Active Learning

(Adapted from Beverly Black and Elizabeth Axelson, University of Michigan)

The goal of the tutor is NOT to solve problems, provide answers, or write papers for students. The primary goal is to show students **how** to solve problems, **how** to think through questions, **how** to work through the writing process. Tutors should get the students to do the thinking and talking as much as possible. Sometimes it is important to slow things down so that students can become more aware of what they are doing – more aware of their thinking processes. This awareness can lead to intellectual change, development, and growth.

Some ways to get students to slow down and reflect on their thinking processes:

- Have students read the problem/question/assignment aloud and tell you what is needed before they start work.
- Get students to “think out-loud” as they respond to a problem/question/assignment. Encourage students to constantly talk about what they are doing and why. This will slow down the thinking process and make it more explicit – and perhaps more accurate. It will at least allow you to help students check their own reasoning and find their own mistakes by having them express exactly what they know about the problem/question/assignment.
- Ask questions or make comments that can help students clarify their thinking:
 - ◊ What are some possible ways you might go about solving this problem/question/assignment?
 - ◊ Tell me what you know about the problem/question/assignment.
 - ◊ How might you break the problem/question/assignment into small steps?
 - ◊ What are you thinking right now?
 - ◊ I don’t understand. Will you please explain?

Sometimes you may find it appropriate to model good problem solving techniques. You may need to demonstrate how you would go about reading and understanding a question before responding to it. Make sure that your model or demonstrations is clear (e.g., work step-by-step, back up if necessary when things don’t work out, break a complex task into parts, move from simpler to more complex, construct visual representations on paper, etc.). After modeling or demonstrating, require that students work through a similar task to make sure they understand the process.

Source: Math Center Orientation Manual, Northern Kentucky University (Document Version Date: October 9, 2012)

https://lap.nku.edu/content/dam/LAP/docs/Math_Center_Tutor_Orientation_Manual_2012.pdf