

## Homework Assignment

### Step 1: What's your bottleneck?

For this assignment, you need to identify and describe a specific moment in your course in which your students face a learning bottleneck (i.e. something that is essential for their success but which semester after semester large numbers of students fail to grasp). In addition, there are some other questions that will help get the “decoding” process started for our August 17<sup>th</sup> workshop.

Here are examples of productive and unproductive ways to approach the assignment:

#### 1. English

**Vague:** Students cannot interpret texts.

**Useful:** “Students in literature classes have a particular problem in the basic approach to textual interpretation. Students forever want to go directly to interpreting a text without first getting a good grasp of a text’s content. They need to observe before they interpret, but they are constantly skipping a thoughtful observation stage. Skipping this stage leads to poor interpretations.” (*This observation is specific enough and provides enough information that it can serve as a starting place for the analysis of the bottleneck.*)

-Gutjahr, 2004

#### 2. Biology

**Vague:** Students have difficulty moving from fact learning to a deeper understanding of biological processes

**Useful:** Students have difficulty visualizing chromosomes, appreciating the distinction between similar and identical chromosomes (i.e., homologs and sister chromatids), and predicting their segregation patterns during mitosis and meiosis.

-Strome, 2004

**Please answer the following three questions:**

- 1) Identify a specific moment in your course in which your students face a learning bottleneck (i.e. something that is essential for their success but which semester after semester large numbers of students fail to grasp):

2) Describe as precisely as you can what they are getting wrong. (What is the nature of the bottleneck?)

3) Describe the core thinking you do in your discipline to avoid this bottleneck.