K. Scott Alberts* (salberts@truman.edu), Dept. of Mathematics and Computer Science, 100 E. Normal St., Kirksville, MO 63501. *Deep Assignments: Getting Students to Think. Preliminary report.

We all know that skills are learned through practice (and skills are a big part of learning statistics), but critical thinking and engaged learning takes something more. Getting students to apply a statistical eye to normal tasks like reading the newspaper or attending an outside lecture or research session need not be extra credit, but can be an integral part of even a first course in statistics. You might be surprised to see that English major demonstrating a great understanding of statistical independence in an essay that he was unable to demonstrate on your quiz. A student may not see why she needs statistics, particularly daily homework assignments, but she can find connections to something that matters to her (without you finding it for her).

For students ready for real thinking, including anyone beyond a first statistics class, they can find a data set for use in class, redo their homework assignment with the quality of an answer key, or apply their skills to your handouts. Do you know why that Wikipedia page is mediocre? Because your students haven’t fixed it yet, silly.

Student survey data reveals satisfaction, and while exam scores remain constant, outcomes sought by Deep Assignments may not be directly measurable by exams. Indirect measures are in progress. (Received September 21, 2010)