

## The effects of pc-based laboratories on student learning

### CHED 134

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The Department of Chemistry at Western Kentucky University recently incorporated a networked MeasureNet data acquisition and analysis system into in the second semester General Chemistry laboratories. Our investigation team has conducted a study to evaluate the effects of the MeasureNet system on student learning and performance on a Beer's Law laboratory. We focused on two phenomena: the effect of the MeasureNet system on 1) student learning of specific content material and 2) student interest in chemistry and science in general. The study involved a MeasureNet system group (employing a UV-Vis spectrometer and colorimeters) and a control group (employing traditional Spectronic 20D instruments). Pre- and post-assessments were performed using written surveys, one-on-one student interviews and lab practical tasks. Results from the study indicating changes in student baseline knowledge relating to Beer's Law and student comfort level in performing measurements and analysis will be presented.

#### [General Posters](#)

7:30 PM-9:30 PM, Sunday, April 6, 2008 Morial Convention Center -- Hall A, Poster

#### [Sci-Mix](#)

8:00 PM-10:00 PM, Monday, April 7, 2008 Morial Convention Center -- Hall A, Sci-Mix

#### [Division of Chemical Education](#)

[The 235th ACS National Meeting, New Orleans, LA, April 6-10, 2008](#)